

TOPSUN  TOPSUN
インダクタ製品カタログ

2022年12月版

日本総代理店

KANETATSU
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SMD Moding Power Inductor
SMD モーディングパワーインダクタ

P.2～41

TOPSUN SMD Moding Power Inductor

■ Features

1. Compact design.
2. High current, low DCR, high efficiency.
3. Very low acoustic noise and very low leakage flux noise.
4. High reliability.
5. 100% Lead(Pb)-Free and RoHS compliant.



■ Applications

1. Laptop, desktop and server applications.
2. High current power supplies.
3. Battery powered devices.

■ Product Identification

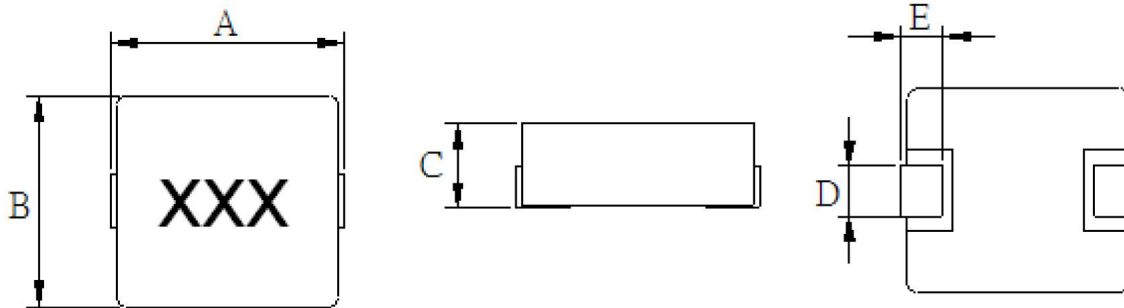
STPI XXXX - XXX X XX
 ① ② ③ ④ ⑤

- ①: Product Symbol
- ②: Dimensions
- ③: Inductance
- ④: Inductance Tolerance
- ⑤: Serial Number



**Customers' designs and requirements are welcome.
 More specifications and performance, please consult to our business!**

■ Product Dimension



Unit : mm

SERIES	A	B	C	D	E
STPI0412	4.45±0.35	4.05±0.3	1.2 Max	2.0±0.3	0.80±0.3
STPI0415	4.45±0.35	4.05±0.3	1.5 Max	2.0±0.3	0.80±0.3
STPI0418	4.45±0.35	4.05±0.3	1.8 Max	2.0±0.3	0.80±0.3
STPI0402	4.45±0.35	4.05±0.3	2.0 Max	2.0±0.3	0.80±0.3
STPI0424	4.45±0.35	4.05±0.3	2.4 Max	2.0±0.3	0.80±0.3
STPI0512	5.5±0.4	5.2±0.2	1.2 Max	2.1±0.3	1.2±0.3
STPI0515	5.5±0.4	5.2±0.2	1.5 Max	2.1±0.3	1.2±0.3
STPI0518	5.5±0.4	5.2±0.2	1.8 Max	2.1±0.3	1.2±0.3
STPI0502	5.5±0.4	5.2±0.2	2.0 Max	2.1±0.3	1.2±0.3
STPI0524	5.5±0.4	5.2±0.2	2.4 Max	2.1±0.3	1.2±0.3
STPI0503	5.5±0.4	5.2±0.2	3.0 Max	2.1±0.3	1.2±0.3
STPI0612	6.9±0.5	6.5±0.5	1.2 Max	2.9±0.5	1.3±0.5
STPI0615	6.9±0.5	6.5±0.5	1.5 Max	2.9±0.5	1.3±0.5
STPI0618	6.9±0.5	6.5±0.5	1.8 Max	2.9±0.5	1.3±0.5
STPI0602	6.9±0.5	6.5±0.5	2.0 Max	2.9±0.5	1.3±0.5
STPI0624	6.9±0.5	6.5±0.5	2.4 Max	2.9±0.5	1.3±0.5
STPI0603	6.9±0.5	6.5±0.5	3.0 Max	2.9±0.5	1.3±0.5
STPI0604	6.9±0.5	6.5±0.5	4.0 Max	2.9±0.5	1.3±0.5
STPI0605	6.9±0.5	6.5±0.5	5.0 Max	2.9±0.5	1.3±0.5
STPI0704	8.2±0.5	7.0±0.5	4.0 Max	3.0±0.5	1.3±0.5
STPI0804	8.5±0.5	8.1±0.3	4.0 Max	2.8±0.5	1.7±0.5
STPI0805	8.5±0.5	8.1±0.3	5.0 Max	2.8±0.5	1.7±0.5
STPI1003	11.0±0.5	10.0±0.3	3.0 Max	3.0±0.5	2.0±0.5
STPI1004	11.0±0.5	10.0±0.3	4.0 Max	3.0±0.5	2.0±0.5
STPI1005	11.0±0.5	10.0±0.3	5.0 Max	3.0±0.5	2.0±0.5
STPI1235	13.5±0.5	12.5±0.4	3.5 Max	3.5±0.5	2.3±0.5
STPI1204	13.5±0.5	12.5±0.4	4.0 Max	3.5±0.5	2.3±0.5
STPI1205	13.5±0.5	12.5±0.4	5.0 Max	3.5±0.5	2.3±0.5
STPI1206	13.5±0.5	12.5±0.4	6.0 Max	3.5±0.5	2.3±0.5
STPI1264	13.5±0.5	12.5±0.4	6.4 Max	3.5±0.5	2.3±0.5
STPI090705	10.5±0.5	6.9±0.3	5.0 Max	2.8±0.5	2.2±0.5
STPI120803	12.8±0.4	7.9±0.3	3.0 Max	3.0±0.5	2.5±0.5
STPI120804	12.8±0.4	7.9±0.3	4.0 Max	3.0±0.5	2.5±0.5
STPI170805	16.8±0.5	8.7±0.1	5.0 Max	4.0±0.5	2.9±0.5

Note: The above dimensions are for reference only

■ ELECTRICAL CHARACTERISTICS

STPI0412

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0412-47NM-T1	0.047	3.00	3.30	20.00	15.00
STPI0412-R10M-E1	0.10	5.00	5.50	12.00	12.00
STPI0412-R12M-E1	0.12	4.80	6.20	20.00	12.00
STPI0412-R15M-E1	0.15	6.00	10.00	22.00	12.00
STPI0412-R22M-E1	0.22	7.70	9.00	13.00	9.00
STPI0412-R22M-E2	0.22	11.30	12.00	20.00	8.00
STPI0412-R33M-E1	0.33	13.50	15.00	10.00	6.50
STPI0412-R47M-E1	0.47	16.00	21.00	6.00	6.00
STPI0412-R56M-E1	0.56	18.00	21.00	7.80	6.00
STPI0412-R68M-E1	0.68	21.00	25.00	6.50	5.00
STPI0412-1R0M-E1	1.00	41.00	52.50	6.50	4.00
STPI0412-1R2M-E1	1.20	50.00	55.00	3.75	3.75
STPI0412-1R5M-E1	1.50	68.00	75.00	4.00	3.00
STPI0412-2R2M-E1	2.20	73.00	100.00	2.75	2.45
STPI0412-2R2M-E2	2.20	74.00	82.00	3.30	3.80
STPI0412-3R3M-E1	3.30	113.00	124.00	2.30	1.85
STPI0412-4R7M-E1	4.70	130.00	145.00	1.70	1.30

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0415

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0415-R47M-E1	0.47	15.50	18.00	11.00	6.50
STPI0415-R68M-T1	0.68	19.00	22.00	8.00	5.00
STPI0415-1R0M-E1	1.00	35.00	42.00	7.00	4.00
STPI0415-1R2M-E1	1.20	34.00	40.00	7.00	5.00
STPI0415-1R5M-E1	1.50	44.00	50.00	6.00	3.50
STPI0415-2R2M-E1	2.20	70.00	79.00	5.00	3.00
STPI0415-4R7M-E1	4.70	134.00	146.00	3.00	2.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0418

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0418-R47M-T1	0.47	11.00	13.00	12.00	7.50
STPI0418-R56M-E1	0.56	14.00	16.00	10.00	6.50
STPI0418-1R0M-E1	1.00	21.00	25.00	7.00	5.30
STPI0418-1R5M-E1	1.50	32.00	37.00	6.00	4.50
STPI0418-2R2M-E1	2.20	39.00	45.00	5.50	4.00
STPI0418-3R3M-E1	3.30	63.00	76.00	4.00	3.50

Note:

1. Test frequency : L : 100KHz /0.25V.
 2. All test data referenced to 25°C ambient.
 3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
 4. I sat: The current will cause L0 to drop approximately 30% typical.
 5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
 6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
- The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
 8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0402

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0402-R10M-E1	0.10	2.80	3.30	35.00	15.00
STPI0402-R20M-E1	0.20	5.00	7.50	16.00	10.00
STPI0402-R22M-E1	0.22	5.00	7.50	16.00	10.00
STPI0402-R22M-E2	0.22	6.00	6.60	12.50	9.00
STPI0402-R24M-E1	0.24	6.50	8.00	15.00	9.00
STPI0402-R33M-E1	0.33	7.90	8.70	18.00	10.00
STPI0402-R36M-E1	0.36	8.00	9.20	9.50	11.50
STPI0402-R47M-E1	0.47	12.00	15.00	12.00	7.00
STPI0402-R56M-E1	0.56	14.00	16.00	10.00	6.50
STPI0402-R68M-E1	0.68	16.00	19.00	10.00	7.00
STPI0402-1R0M-H1	1.00	16.00	17.00	8.50	6.00
STPI0402-1R0M-E1	1.00	23.00	27.00	8.50	5.00
STPI0402-1R0M-E2	1.00	21.00	25.00	8.50	5.30
STPI0402-1R2M-E1	1.20	24.00	27.00	7.00	4.50
STPI0402-1R5M-E1	1.50	37.00	42.00	7.00	4.50
STPI0402-2R2M-E1	2.20	38.00	58.00	5.00	4.00
STPI0402-3R3M-E1	3.30	63.00	76.00	4.00	3.50
STPI0402-4R7M-E1	4.70	97.00	105.00	3.00	2.00
STPI0402-5R6M-E1	5.60	105.00	115.00	3.50	1.80
STPI0402-6R8M-E1	6.80	135.00	160.00	2.50	2.00
STPI0402-8R2M-E1	8.20	160.00	207.00	2.40	1.80
STPI0402-100M-E1	10.00	210.00	260.00	2.40	1.60
STPI0402-220M-E1	22.00	460.00	550.00	1.00	0.80

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0424

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0424-R68M-E1	0.68	12.80	15.00	9.50	7.20
STPI0424-1R0M-H1	1.00	14.80	17.00	8.50	7.00
STPI0424-100M-E1	10.00	165.00	210.00	2.00	1.70
STPI0424-220M-T1	22.00	350.00	390.00	2.00	1.50

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0512

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0512-R12M-E1	0.12	4.80	5.80	30.00	12.00
STPI0512-R22M-E1	0.22	8.10	9.00	11.00	9.00
STPI0512-R47M-E1	0.47	15.50	17.00	10.00	7.00
STPI0512-R68M-E1	0.68	20.00	24.50	9.00	6.00
STPI0512-1R0M-E1	1.00	32.50	37.00	7.00	5.00
STPI0512-1R5M-E	1.50	52.00	58.00	6.00	4.00
STPI0512-2R2M-E1	2.20	75.00	85.00	5.50	3.30
STPI0512-2R2M-E2	2.20	73.60	77.30	6.00	3.40
STPI0512-3R3M-E1	3.30	85.00	98.00	4.00	3.20
STPI0512-4R7M-E1	4.70	130.00	160.00	2.50	2.30
STPI0512-6R8M-E1	6.80	225.00	250.00	2.30	2.00
STPI0512-150M-E1	15.00	430.00	470.00	1.60	1.30

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0515

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0515-R12M-E1	0.12	3.20	3.70	25.00	16.00
STPI0515-R15M-E1	0.15	3.60	4.50	20.00	15.00
STPI0515-R22M-E1	0.22	6.00	8.00	18.00	12.00
STPI0515-R33M-E1	0.33	8.80	11.00	16.00	10.00
STPI0515-R47M-E1	0.47	8.80	9.40	12.00	9.50
STPI0515-R68M-E1	0.68	14.00	16.20	13.00	7.00
STPI0515-R68M-E2	0.68	19.00	23.00	10.00	6.00
STPI0515-1R0M-E1	1.00	21.00	23.00	9.00	6.50
STPI0515-1R5M-E1	1.50	31.00	35.00	7.50	5.00
STPI0515-2R0M-E1	2.00	50.00	60.00	5.00	4.20
STPI0515-2R2M-E1	2.20	45.00	55.00	6.00	4.00
STPI0515-3R3M-E1	3.30	61.00	70.00	5.00	3.50
STPI0515-4R7M-E1	4.70	90.00	100.00	4.50	3.00
STPI0515-6R8M-E1	6.80	120.00	130.00	3.20	2.50
STPI0515-100M-E1	10.00	152.00	170.00	2.70	1.90
STPI0515-150M-E1	15.00	310.00	350.00	2.30	1.30

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0518

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0518-R12M-E1	0.12	2.70	3.30	26.00	17.00
STPI0518-R33M-E1	0.33	5.50	6.80	13.00	8.00
STPI0518-R47M-E1	0.47	8.00	9.00	15.50	10.50
STPI0518-R47M-E2	0.47	8.50	9.10	15.50	11.00
STPI0518-R56M-E1	0.56	8.00	9.00	14.00	10.50
STPI0518-R68M-E1	0.68	12.40	14.30	13.00	9.00
STPI0518-1R0M-E1	1.00	18.00	21.00	10.00	6.80
STPI0518-1R0M-E2	1.00	15.00	17.00	9.00	8.00
STPI0518-1R5M-E1	1.50	26.00	30.00	10.00	5.50
STPI0518-2R2M-E1	2.20	35.50	40.00	5.40	4.70
STPI0518-2R2M-E2	2.20	30.00	35.00	7.00	5.00
STPI0518-3R3M-E1	3.30	51.00	58.00	5.00	4.00
STPI0518-4R7M-E1	4.70	78.00	85.00	4.00	3.50
STPI0518-4R7M-E2	4.70	64.00	73.00	4.90	3.50
STPI0518-5R0M-E1	5.00	75.00	85.00	4.00	3.50
STPI0518-6R8M-E1	6.80	107.00	120.00	3.40	2.80
STPI0518-8R2M-E1	8.20	131.00	145.00	3.10	2.60
STPI0518-100M-E1	10.00	140.00	155.00	3.00	2.50

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0502

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0502-R10M-E1	0.10	3.60	3.90	38.30	17.00
STPI0502-R12M-E1	0.12	2.70	3.30	26.00	17.00
STPI0502-R15M-E1	0.15	2.00	2.50	25.00	18.00
STPI0502-R22M-E1	0.22	4.50	5.50	21.00	14.00
STPI0502-R24M-E1	0.24	5.00	5.80	18.50	12.00
STPI0502-R33M-E1	0.33	5.80	7.00	16.00	12.00
STPI0502-R47M-E1	0.47	8.00	9.00	17.90	10.50
STPI0502-R56M-E1	0.56	9.10	10.00	17.00	9.50
STPI0502-R68M-E1	0.68	12.00	14.00	14.00	8.50
STPI0502-R68M-E2	0.68	9.50	10.80	8.00	9.00
STPI0502-1R0M-E1	1.00	18.50	20.00	13.70	7.00
STPI0502-1R5M-E1	1.50	26.00	30.00	12.00	5.50
STPI0502-1R5M-E2	1.50	22.00	30.50	9.80	6.00
STPI0502-2R2M-E1	2.20	30.00	37.00	6.50	5.00
STPI0502-2R2M-E2	2.20	40.00	47.00	8.50	4.50
STPI0502-3R3M-E1	3.30	46.00	52.00	7.00	4.20
STPI0502-4R7M-E1	4.70	75.00	85.00	4.00	3.50
STPI0502-5R6M-E1	5.60	113.00	122.00	3.90	2.50
STPI0502-6R8M-E1	6.80	139.00	150.00	3.70	2.40
STPI0502-100M-E1	10.00	184.00	199.00	3.40	2.30

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25 $^{\circ}$ C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^{\circ}$ C.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range -40 $^{\circ}$ C ~ 125 $^{\circ}$ C.
6. Storage temperature and Humidity range -40 $^{\circ}$ C ~ 85 $^{\circ}$ C <75%RH.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125 $^{\circ}$ C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0524

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0524-R68M-E1	0.68	8.00	8.80	17.00	12.00
STPI0524-1R0M-E1	1.00	11.00	13.00	10.00	9.00

Note:

1. Test frequency : L : 100KHz /0.25V.
 2. All test data referenced to 25°C ambient.
 3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
 4. I sat: The current will cause L0 to drop approximately 30% typical.
 5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
 6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
- The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
 8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0503

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0503-R10M-E1	0.10	0.98	1.20	35.00	30.00
STPI0503-R15M-E1	0.15	1.45	1.55	35.00	21.00
STPI0503-R20M-E1	0.20	1.80	2.30	30.00	21.00
STPI0503-R22M-E1	0.22	1.80	2.30	30.00	20.00
STPI0503-R33M-E1	0.33	4.20	4.70	18.00	14.50
STPI0503-R47M-E1	0.47	5.00	6.00	17.00	13.00
STPI0503-R56M-E1	0.56	6.00	6.50	15.00	11.00
STPI0503-R68M-E1	0.68	8.60	9.00	13.50	10.20
STPI0503-R68M-E2	0.68	7.50	8.50	11.00	11.00
STPI0503-R82M-E1	0.82	10.00	12.00	11.00	9.00
STPI0503-1R0M-E1	1.00	13.00	14.00	11.00	8.00
STPI0503-1R0M-E2	1.00	10.00	12.00	9.00	9.00
STPI0503-1R2M-E1	1.20	15.00	16.00	11.00	6.50
STPI0503-1R5M-E1	1.50	17.00	20.70	11.00	7.20
STPI0503-2R2M-E1	2.20	25.00	29.00	10.00	5.80
STPI0503-2R2M-E2	2.20	21.00	24.00	9.50	6.50
STPI0503-3R3M-E1	3.30	45.00	55.00	8.50	4.50
STPI0503-3R3M-E2	3.30	32.00	38.00	7.00	5.00
STPI0503-4R7M-E1	4.70	50.00	60.00	6.00	4.00
STPI0503-4R7M-E2	4.70	42.00	53.00	6.00	4.60
STPI0503-6R8M-E1	6.80	72.00	84.00	3.60	3.10
STPI0503-100M-E1	10.00	90.00	125.00	3.50	3.20
STPI0503-150M-E1	15.00	215.00	265.00	2.50	1.90
STPI0503-220M-E1	22.00	230.00	275.00	1.90	1.90

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.



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■ ELECTRICAL CHARACTERISTICS

STPI0612

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0612-R22M-E1	0.22	7.00	8.00	15.00	11.00
STPI0612-R47M-E1	0.47	13.50	15.50	11.00	7.00
STPI0612-R56M-E1	0.56	13.50	15.50	11.00	7.00
STPI0612-R68M-E1	0.68	17.00	19.00	8.00	7.00
STPI0612-R82M-E1	0.82	21.50	24.50	8.00	6.30
STPI0612-1R0M-E1	1.00	26.00	29.00	7.00	6.00
STPI0612-2R2M-E1	2.20	70.00	78.00	5.00	3.50
STPI0612-3R3M-E1	3.30	80.00	92.00	4.00	3.00
STPI0612-4R7M-E1	4.70	106.00	122.00	3.50	2.70
STPI0612-6R8M-E1	6.80	185.00	210.00	2.80	2.20
STPI0612-100M-E1	10.00	250.00	290.00	2.20	2.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0615

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0615-R12M-E1	0.12	3.40	4.00	29.00	16.90
STPI0615-R15M-E1	0.15	3.70	4.30	22.00	15.00
STPI0615-R18M-E1	0.18	4.00	5.00	20.00	15.00
STPI0615-R22M-E1	0.22	5.30	5.80	20.00	13.00
STPI0615-R47M-E1	0.47	7.40	7.80	15.50	10.80
STPI0615-R68M-E1	0.68	13.80	15.20	15.00	7.50
STPI0615-R82M-E1	0.82	14.30	17.00	10.00	7.50
STPI0615-1R0M-E1	1.00	17.00	19.00	9.00	6.80
STPI0615-1R5M-E1	1.50	25.00	28.00	8.00	6.00
STPI0615-2R2M-E1	2.20	36.00	42.00	6.10	5.10
STPI0615-3R3M-E1	3.30	56.00	63.00	5.20	4.00
STPI0615-4R7M-E1	4.70	77.00	84.00	4.50	3.00
STPI0615-6R8M-E1	6.80	125.00	135.00	4.00	2.50
STPI0615-100M-E1	10.00	165.00	175.00	3.00	2.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0618

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0618-R10M-E1	0.10	2.00	2.50	45.00	20.00
STPI0618-R10M-E2	0.10	1.80	2.50	38.00	25.00
STPI0618-R12M-E1	0.12	2.00	3.00	35.00	21.50
STPI0618-R15M-E1	0.15	3.00	3.50	25.00	18.00
STPI0618-R22M-E1	0.22	5.00	5.70	26.00	14.00
STPI0618-R33M-E1	0.33	6.60	7.00	18.00	12.00
STPI0618-R36M-E1	0.36	6.60	7.00	18.00	12.00
STPI0618-R47M-E1	0.47	7.20	8.00	18.00	10.50
STPI0618-R68M-E1	0.68	12.40	13.90	17.00	9.00
STPI0618-R82M-E1	0.82	13.80	15.90	17.00	8.00
STPI0618-1R0M-E1	1.00	16.00	17.00	14.00	7.00
STPI0618-1R5M-E1	1.50	24.50	28.00	12.00	6.30
STPI0618-2R2M-E1	2.20	31.00	35.00	13.00	6.00
STPI0618-3R3M-E1	3.30	56.00	64.00	10.00	4.00
STPI0618-3R3M-E2	3.30	43.00	48.00	8.00	5.00
STPI0618-4R7M-E1	4.70	75.00	78.00	8.00	3.50
STPI0618-6R8M-E1	6.80	99.00	110.00	4.00	2.80
STPI0618-8R2M-E1	8.20	120.00	135.00	3.00	2.50
STPI0618-100M-E1	10.00	140.00	155.00	2.50	2.30
STPI0618-150M-E1	15.00	210.00	260.00	2.20	1.80

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0602

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0602-R10M-E1	0.10	2.00	2.50	45.00	22.00
STPI0602-R15M-E1	0.15	2.35	2.55	40.00	21.00
STPI0602-R22M-E1	0.22	3.30	4.00	26.00	17.00
STPI0602-R33M-E1	0.33	4.90	5.60	20.00	14.00
STPI0602-R47M-E1	0.47	5.70	6.50	18.00	13.00
STPI0602-R68M-E1	0.68	6.80	7.50	17.00	13.00
STPI0602-R82M-E1	0.82	12.00	14.00	16.00	9.00
STPI0602-1R0M-E1	1.00	16.00	18.30	14.00	7.00
STPI0602-1R5M-E1	1.50	23.00	27.00	10.00	6.50
STPI0602-2R2M-E1	2.20	24.00	35.00	8.00	7.00
STPI0602-3R3M-E1	3.30	43.00	48.00	8.00	5.00
STPI0602-4R7M-E1	4.70	72.00	78.00	8.00	3.00
STPI0602-6R8M-E1	6.80	100.00	110.00	5.00	2.50

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0624

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0624-R10M-E1	0.10	0.90	1.20	43.00	33.00
STPI0624-R22M-E1	0.22	2.40	3.00	34.00	21.00
STPI0624-R33M-E1	0.33	3.40	4.10	24.00	18.00
STPI0624-R47M-E1	0.47	6.00	6.50	21.00	13.50
STPI0624-R56M-E1	0.56	5.90	6.50	17.00	13.00
STPI0624-R68M-E1	0.68	6.00	7.20	16.00	12.00
STPI0624-R82M-E1	0.82	10.20	11.80	17.00	10.00
STPI0624-1R0M-E1	1.00	10.20	13.50	15.50	10.00
STPI0624-1R5M-E1	1.50	16.70	21.00	15.00	8.00
STPI0624-2R2M-E1	2.20	22.00	28.00	14.00	7.00
STPI0624-3R3M-E1	3.30	32.00	39.00	13.00	5.50
STPI0624-4R7M-E1	4.70	41.00	50.00	10.00	5.00
STPI0624-5R6M-E1	5.60	53.00	65.00	7.00	4.00
STPI0624-6R8M-E1	6.80	57.00	70.00	6.00	4.00
STPI0624-8R2M-E1	8.20	84.20	106.00	8.00	3.00
STPI0624-100M-E1	10.00	100.00	105.00	7.00	3.00
STPI0624-150M-E1	15.00	145.00	160.00	3.30	2.50
STPI0624-220M-E1	22.00	210.00	230.00	2.50	2.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0603

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0603-R10M-E1	0.10	1.50	1.70	60.00	30.00
STPI0603-R15M-E1	0.15	2.00	2.50	52.00	26.00
STPI0603-R22M-E1	0.22	2.00	2.20	40.00	24.00
STPI0603-R24M-E1	0.24	2.00	2.20	36.00	22.00
STPI0603-R33M-E1	0.33	3.00	3.50	25.00	21.00
STPI0603-R36M-E1	0.36	2.10	2.40	32.00	23.00
STPI0603-R47M-E1	0.47	4.00	4.20	26.00	16.50
STPI0603-R47M-E2	0.47	3.40	4.10	20.00	18.00
STPI0603-R56M-E1	0.56	4.70	5.00	25.00	15.50
STPI0603-R68M-E1	0.68	4.70	5.50	23.00	15.50
STPI0603-R82M-E1	0.82	6.70	8.00	24.00	13.00
STPI0603-1R0M-E1	1.00	9.00	10.00	22.00	11.00
STPI0603-1R0M-E2	1.00	6.70	7.40	16.00	12.50
STPI0603-1R5M-E1	1.50	13.00	15.00	18.00	9.00
STPI0603-2R2M-E1	2.20	17.00	20.00	14.00	8.00
STPI0603-2R2M-E2	2.20	12.50	15.00	8.00	7.60
STPI0603-3R3M-E1	3.30	28.00	30.00	13.50	6.00
STPI0603-4R7M-E1	4.70	37.00	40.00	10.00	5.50
STPI0603-5R6M-E1	5.60	40.00	50.00	9.00	5.00
STPI0603-6R8M-E1	6.80	52.00	60.00	8.00	4.50
STPI0603-6R8M-E2	6.80	42.00	48.00	4.80	4.00
STPI0603-8R2M-E1	8.20	64.00	68.00	7.50	4.00
STPI0603-8R2M-E2	8.20	55.00	60.00	6.00	4.50
STPI0603-100M-E1	10.00	96.00	105.00	7.00	3.00
STPI0603-100M-E2	10.00	62.00	68.00	5.00	4.00
STPI0603-150M-E1	15.00	133.00	150.00	3.80	2.70
STPI0603-150M-E2	15.00	110.00	125.00	3.00	3.50
STPI0603-220M-E1	22.00	160.00	190.00	3.30	2.20
STPI0603-330M-E1	33.00	260.00	284.00	2.50	2.00
STPI0603-100M-E1	10.00	96.00	105.00	7.00	3.00
STPI0603-100M-E2	10.00	62.00	68.00	5.00	4.00
STPI0603-150M-E1	15.00	133.00	150.00	3.80	2.70
STPI0603-150M-E2	15.00	110.00	125.00	3.00	3.50
STPI0603-220M-E1	22.00	160.00	190.00	3.30	2.20
STPI0603-330M-E1	33.00	260.00	284.00	2.50	2.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.

6.Storage temperature and Humidity range $-40^{\circ}\text{C}\sim 85^{\circ}\text{C}$ $<75\%\text{RH}$.

The product should be used within 6 months from the time of delivery.

7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

8. Special inquiries besides the above common used types can be met on your requirement.



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■ ELECTRICAL CHARACTERISTICS

STPI0604

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0604-R10M-E1	0.10	0.70	0.80	45.00	38.00
STPI0604-R15M-E1	0.15	0.70	0.80	40.00	38.00
STPI0604-R22M-E1	0.22	0.98	1.10	28.00	30.00
STPI0604-R24M-E1	0.24	1.00	1.10	30.00	24.00
STPI0604-R33M-E1	0.33	1.70	2.00	27.00	25.00
STPI0604-R36M-E1	0.36	1.70	2.50	27.00	25.00
STPI0604-R47M-E1	0.47	2.20	2.90	27.00	22.00
STPI0604-R62M-E1	0.62	3.30	4.20	23.50	16.50
STPI0604-R68M-E1	0.68	3.90	4.20	15.00	13.00
STPI0604-1R0M-E1	1.00	5.80	6.50	15.00	11.00
STPI0604-1R0M-E2	1.00	4.28	4.70	19.00	14.50
STPI0604-1R2M-E1	1.20	7.70	8.50	19.00	10.50
STPI0604-1R5M-E1	1.50	8.90	10.00	17.00	10.00
STPI0604-2R2M-E1	2.20	12.50	14.50	12.00	9.00
STPI0604-3R3M-E1	3.30	21.00	23.00	13.00	7.00
STPI0604-4R7M-E1	4.70	20.00	22.50	9.00	6.00
STPI0604-6R8M-E1	6.80	33.00	37.00	8.00	5.50
STPI0604-100M-E1	10.00	62.00	70.00	7.00	4.00
STPI0604-150M-E1	15.00	89.00	101.00	5.00	3.10
STPI0604-220M-E1	22.00	110.00	140.00	4.00	2.80
STPI0604-330M-E1	33.00	180.00	220.00	3.00	2.20

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0605

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0605-R10M-E1	0.10	0.70	0.80	45.00	38.00
STPI0605-R15M-E1	0.15	0.65	0.75	40.00	40.00
STPI0605-R22M-E1	0.22	1.15	1.30	50.00	30.00
STPI0605-R36M-E1	0.36	2.70	3.10	27.00	20.00
STPI0605-R47M-E1	0.47	3.25	3.75	21.00	20.00
STPI0605-R56M-E1	0.56	3.40	3.60	18.00	18.00
STPI0605-R68M-E1	0.68	4.00	4.50	16.00	16.00
STPI0605-R82M-E1	0.82	4.60	4.90	16.00	15.00
STPI0605-1R0M-E1	1.00	5.60	6.50	15.00	13.00
STPI0605-1R5M-E1	1.50	7.50	8.50	13.00	12.00
STPI0605-2R2M-E1	2.20	11.20	12.50	12.00	10.00
STPI0605-3R3M-E1	3.30	19.90	20.90	10.00	7.00
STPI0605-4R7M-E1	4.70	21.00	22.50	10.00	7.00
STPI0605-5R6M-E1	5.60	29.00	34.40	7.00	6.00
STPI0605-6R8M-E1	6.80	39.00	44.60	7.50	5.00
STPI0605-8R2M-E1	8.20	44.00	47.00	7.00	5.00
STPI0605-100M-E1	10.00	60.00	71.30	7.00	4.20
STPI0605-150M-E1	15.00	105.00	127.00	3.40	3.10
STPI0605-220M-E1	22.00	122.00	150.00	2.80	2.60
STPI0605-330M-E1	33.00	170.00	210.00	2.80	2.30
STPI0605-470M-E1	47.00	200.00	240.00	2.50	2.20

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0704

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0704-R15M-E1	0.15	0.79	0.84	55.00	36.00
STPI0704-R22M-T1	0.22	0.79	0.84	50.00	36.00
STPI0704-R33M-T1	0.33	0.81	0.85	35.00	32.00

Note:

1. Test frequency : L : 100KHz /0.25V.
 2. All test data referenced to 25°C ambient.
 3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
 4. I sat: The current will cause L0 to drop approximately 30% typical.
 5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
 6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
- The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
 8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0804

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0804-R15M-E1	0.15	0.58	0.66	60.00	42.00
STPI0804-R22M-E1	0.22	0.98	1.10	50.00	32.00
STPI0804-1R0M-T1	1.00	3.70	4.50	27.00	16.50
STPI0804-2R2M-E1	2.20	8.80	9.50	14.50	10.20
STPI0804-3R3M-E1	3.30	17.20	19.00	15.00	8.25

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI0805

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI0805-R15M-E1	0.15	0.54	0.60	63.00	43.00
STPI0805-R22M-E1	0.22	0.70	0.90	35.00	32.00
STPI0805-R33M-E1	0.33	0.98	1.10	45.00	33.00
STPI0805-R47M-E1	0.47	1.45	1.60	35.00	28.00
STPI0805-R56M-E1	0.56	1.50	2.00	32.00	25.00
STPI0805-R82M-E1	0.82	4.20	4.70	30.00	15.00
STPI0805-1R0M-E1	1.00	2.70	3.20	20.00	17.00
STPI0805-1R5M-E1	1.50	6.30	7.00	20.00	12.00
STPI0805-2R2M-E1	2.20	8.00	9.00	16.00	11.00
STPI0805-3R3M-E1	3.30	10.50	12.00	18.00	11.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI1003

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI1003-R15M-E1	0.15	0.75	0.90	50.00	40.00
STPI1003-R22M-E1	0.22	0.90	1.00	50.00	32.00
STPI1003-R36M-E1	0.36	1.30	1.50	28.00	23.00
STPI1003-R36M-E2	0.36	1.05	1.15	30.00	26.00
STPI1003-R47M-E1	0.47	1.90	2.10	28.00	24.00
STPI1003-R56M-E1	0.56	2.40	3.00	24.00	22.00
STPI1003-R68M-E1	0.68	2.80	3.40	23.00	19.00
STPI1003-R88M-E1	0.88	4.80	5.80	19.00	15.00
STPI1003-1R0M-E1	1.00	5.30	6.00	21.00	15.00
STPI1003-1R5M-E1	1.50	6.50	8.40	17.00	13.00
STPI1003-2R2M-E1	2.20	8.00	9.00	16.00	13.00
STPI1003-3R3M-E1	3.30	14.50	16.00	14.00	9.00
STPI1003-4R7M-E1	4.70	20.50	22.50	13.00	7.00
STPI1003-8R2M-E1	8.20	35.00	45.00	8.50	6.00
STPI1003-100M-E1	10.00	50.00	55.00	7.50	5.00
STPI1003-150M-E1	15.00	59.00	65.00	6.00	4.00
STPI1003-220M-E1	22.00	90.00	99.00	5.00	3.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI1004

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI1004-R15M-E1	0.15	0.50	0.60	75.00	43.00
STPI1004-R19M-E1	0.19	0.76	0.80	90.00	40.00
STPI1004-R20M-E1	0.20	0.45	0.53	70.00	40.00
STPI1004-R22M-E1	0.22	0.80	1.00	60.00	35.00
STPI1004-R33M-E1	0.33	1.10	1.20	60.00	30.00
STPI1004-R36M-E1	0.36	1.10	1.20	60.00	30.00
STPI1004-R47M-E1	0.47	1.35	1.68	40.00	23.00
STPI1004-R56M-E1	0.56	1.60	1.80	40.00	25.00
STPI1004-R68M-E1	0.68	1.90	2.10	43.00	22.00
STPI1004-R88M-E1	0.88	2.70	3.00	38.00	20.00
STPI1004-1R0M-E1	1.00	3.10	3.30	36.00	18.00
STPI1004-1R5M-E1	1.50	4.30	5.80	32.00	15.00
STPI1004-2R2M-E1	2.20	7.80	9.00	27.00	12.00
STPI1004-2R2M-E2	2.2	6.60	7.00	23.00	13.00
STPI1004-3R3M-E1	3.3	10.50	11.80	14.00	10.00
STPI1004-4R7M-E1	4.7	10.80	12.00	12.00	10.00
STPI1004-5R6M-E1	5.6	17.60	19.30	16.00	8.50
STPI1004-6R8M-E1	6.8	21.00	23.30	12.00	8.00
STPI1004-8R2M-E1	8.2	25.00	27.00	9.00	6.00
STPI1004-100M-E1	10	28.00	30.00	7.50	6.10
STPI1004-150M-E1	15	40.00	45.00	6.00	5.00
STPI1004-220M-E1	22	60.00	70.00	6.00	4.00
STPI1004-330M-E1	33	85.00	112.00	5.00	3.50
STPI1004-470M-E1	47.00	130.00	145.00	4.00	3.00
STPI1004-680M-E1	68.00	200.00	240.00	3.30	2.20
STPI1004-680M-E2	68.00	180.00	195.00	3.00	2.30
STPI1004-101M-E1	100.00	270.00	350.00	2.50	2.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.





alter or revise the specifications without prior notification.

■ ELECTRICAL CHARACTERISTICS

STPI1005

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI1005-R15M-E1	0.15	0.40	0.45	80.00	60.00
STPI1005-R22M-E1	0.22	0.75	0.79	72.00	40.00
STPI1005-R30M-E1	0.30	0.60	0.65	65.00	38.00
STPI1005-R33M-E1	0.33	0.76	0.81	60.00	38.00
STPI1005-R36M-E1	0.36	0.76	0.81	64.00	40.00
STPI1005-R47M-E1	0.47	0.90	1.10	50.00	36.00
STPI1005-R68M-E1	0.68	1.50	1.80	32.00	29.20
STPI1005-1R0M-E1	1.00	2.00	2.40	27.00	25.00
STPI1005-1R5M-E1	1.50	2.60	2.90	22.00	19.00
STPI1005-2R2M-E1	2.20	4.30	5.50	25.00	15.00
STPI1005-3R3M-E1	3.30	9.00	11.00	18.00	11.00
STPI1005-4R7M-E1	4.70	11.00	13.30	13.50	11.00
STPI1005-6R8M-E1	6.80	17.00	20.00	11.00	10.00
STPI1005-8R2M-E1	8.20	19.00	25.20	10.70	9.30
STPI1005-100M-E1	10.00	23.00	27.00	10.30	8.70
STPI1005-150M-E1	15.00	36.00	43.00	8.00	6.00
STPI1005-220M-E1	22.00	57.00	69.00	6.60	4.80
STPI1005-330M-E1	33.00	85.00	100.00	5.50	4.00
STPI1005-470M-E1	47.00	120.00	144.00	4.60	3.20
STPI1005-680M-E1	68.00	168.00	211.00	3.90	2.90

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI1235

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI1235-R22M-E1	0.22	0.70	0.80	65.00	41.00
STPI1235-R33M-E1	0.33	1.10	1.30	65.00	38.00
STPI1235-R47M-E1	0.47	1.60	2.00	55.00	32.00
STPI1235-R68M-E1	0.68	2.20	2.50	49.00	28.00
STPI1235-R82M-E1	0.82	2.60	3.00	44.00	25.00
STPI1235-1R0M-E1	1.0	3.10	3.50	40.00	24.00
STPI1235-1R5M-E1	1.5	5.00	5.50	35.00	19.00
STPI1235-1R5M-E2	1.5	4.00	4.70	26.00	18.00
STPI1235-2R2M-E1	2.2	7.00	8.00	29.00	16.00
STPI1235-3R3M-E1	3.3	11.00	12.00	27.00	12.00
STPI1235-3R3M-E2	3.3	8.30	9.50	16.00	13.00
STPI1235-4R7M-E1	4.7	16.00	18.00	22.00	9.00
STPI1235-4R7M-E2	4.7	14.30	15.00	24.00	10.00
STPI1235-5R6M-E1	5.6	18.30	19.00	19.00	9.50
STPI1235-6R8M-E1	6.8	19.80	22.00	18.00	9.00
STPI1235-8R2M-E1	8.2	24.80	28.00	16.00	8.00
STPI1235-100M-E1	10	30.40	34.00	14.00	7.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI1204

Part Number	L (μ H)	DCR ($m\Omega$)		I sat(A)	I rms(A)
		TYP	MAX		
STPI1204-R22M-E1	0.22	0.50	0.6	70.00	40.00
STPI1204-R47M-E1	0.47	1.00	1.30	60.00	38.00
STPI1204-470M-E1	47	120.00	140.00	7.00	3.00
STPI1204-470M-E2	47	103.00	130.00	6.00	3.40

Note:

1. Test frequency : L : 100KHz /0.25V.
 2. All test data referenced to 25°C ambient.
 3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
 4. I sat: The current will cause L0 to drop approximately 30% typical.
 5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
 6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
- The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
 8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI1205

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI1205-R10M-E1	0.1	0.50	0.6	118.00	55.00
STPI1205-R15M-E	0.15	0.55	0.70	110.00	45.00
STPI1205-R22M-E1	0.22	0.55	0.70	110.00	51.00
STPI1205-R33M-E1	0.33	0.70	0.90	75.00	45.00
STPI1205-R36M-E1	0.36	0.70	0.90	75.00	45.00
STPI1205-R47M-E1	0.47	1.00	1.30	65.00	38.00
STPI1205-R56M-E1	0.56	1.20	1.50	55.00	36.00
STPI1205-R68M-E1	0.68	1.30	1.50	46.00	35.00
STPI1205-R82M-E1	0.82	1.80	2.30	53.00	31.00
STPI1205-1R0M-E1	1.0	2.10	2.40	50.00	29.00
STPI1205-1R5M-E1	1.5	3.40	4.10	48.00	23.00
STPI1205-1R5M-E2	1.5	2.80	3.20	33.00	23.00
STPI1205-1R8M-E1	1.8	4.10	4.90	40.00	19.00
STPI1205-2R2M-E1	2.2	4.30	5.50	32.00	20.00
STPI1205-3R3M-E1	3.3	7.40	9.20	32.00	15.00
STPI1205-4R7M-E1	4.7	10.70	15.00	27.00	12.00
STPI1205-5R6M-E1	5.6	13.50	16.50	22.00	11.50
STPI1208-6R8M-E1	6.8	15.00	18.50	21.00	11.00
STPI1205-8R2M-E1	8.2	18.90	22.50	18.00	9.50
STPI1205-100M-E1	10	21.40	25.50	16.00	9.00
STPI1205-220M-E1	22	48.00	58.00	6.50	5.00
STPI1205-270M-E1	27	54.00	66.00	6.30	4.50
STPI1205-330M-E1	33	72.00	84.00	6.00	4.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI1206

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI1206-R47M-E1	0.47	1.00	1.2	63.00	41.00
STPI1206-1R0M-E1	1.0	1.80	2.40	45.00	29.00
STPI1206-2R2M-E1	2.2	3.20	3.80	40.00	22.00
STPI1206-2R7M-E1	2.7	4.00	4.70	33.00	21.00
STPI1206-3R3M-E1	3.3	5.70	6.60	32.00	16.00
STPI1206-4R7M-E1	4.7	9.50	11.50	25.00	13.00
STPI1206-8R2M-E1	8.2	14.00	16.00	16.00	11.00
STPI1206-100M-E1	10	17.70	20.70	13.50	10.00
STPI1206-150M-E1	15	24.00	27.50	10.00	8.00
STPI1206-220M-E1	22	34.00	39.00	7.60	7.00
STPI1206-330M-E1	33	60.00	70.00	6.10	5.00
STPI1206-470M-E1	47	79.00	88.00	5.70	4.50
STPI1206-680M-E1	68	119.00	140.00	5.50	3.50
STPI1206-101M-E1	100	178.00	198.00	4.00	3.00
STPI1206-151M-E1	150	270.00	347.00	3.00	2.30

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI1264

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI1264-R22M-E1	0.22	0.60	0.7	112.00	53.00
STPI1264-R33M-E1	0.33	0.70	0.90	80.00	48.00
STPI1264-R47M-E1	0.47	0.85	1.00	60.00	44.00
STPI1264-R56M-E1	0.56	1.20	1.40	62.00	37.00
STPI1264-R68M-E1	0.68	1.30	1.50	53.00	35.00
STPI1264-R82M-E1	0.82	1.50	1.90	50.00	33.00
STPI1264-1R0M-E1	1.0	1.60	2.00	49.00	32.00
STPI1264-1R5M-E1	1.5	2.40	3.00	45.00	27.00
STPI1264-2R2M-E1	2.2	3.20	3.80	40.00	22.00
STPI1264-3R3M-E1	3.3	5.70	6.80	35.00	18.00
STPI1264-4R7M-E1	4.7	7.50	8.70	32.00	14.00
STPI1264-5R6M-E1	5.6	9.30	10.00	32.00	13.50
STPI1264-6R8M-E1	6.8	13.00	14.00	16.50	11.50
STPI1264-8R2M-E1	8.2	13.80	15.50	16.00	10.50
STPI1264-100M-E1	10	16.40	17.2	15.50	10.00
STPI1264-220M-E1	22	28.00	35.00	8.00	8.00
STPI1264-330M-E1	33	60.00	70.00	6.10	5.00
STPI1264-470M-E1	47	71.00	80.00	6.00	4.80
STPI1264-820M-E1	82	112.00	140.00	4.50	3.90

Note:

1. Test frequency : L : 100KHz /0.25V.
 2. All test data referenced to 25°C ambient.
 3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
 4. I sat: The current will cause L0 to drop approximately 30% typical.
 5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
 6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
- The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
 8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI090705

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI090705-R15M-E1	0.15	0.60	0.7	75.00	41.00
STPI090705-R22M-E1	0.22	0.90	0.96	72.00	34.00
STPI090705-R27M-E1	0.27	0.82	0.86	62.00	36.00
STPI090705-R30M-E1	0.3	1.05	1.15	53.00	30.00
STPI090705-R33M-E1	0.33	1.42	1.51	60.00	28.00
STPI090705-R47M-E1	0.47	1.40	1.55	36.00	28.00
STPI090705-R82M-E1	0.82	3.40	4.00	34.00	17.00
STPI090705-1R0M-E1	1.0	5.30	6.00	17.00	14.00
STPI090705-3R3M-E1	3.3	13.50	15.00	12.00	9.00
STPI090705-4R7M-E1	4.7	17.50	21.00	10.00	7.50
STPI090705-6R8M-E1	6.8	24.00	30.00	7.00	6.50

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI120803

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI120803-R22M-T1	0.22	0.90	1	70.00	33.00
STPI120803-R47M-T1	0.47	1.70	2.00	42.00	24.00

Note:

1. Test frequency : L : 100KHz /0.25V.
 2. All test data referenced to 25°C ambient.
 3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
 4. I sat: The current will cause L0 to drop approximately 30% typical.
 5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
 6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
- The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
 8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

STPI120804

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI120804-R22M-T1	0.22	0.48	0.5	80.00	45.00
STPI120804-R47M-T1	0.47	1.10	1.15	70.00	40.00

Note:

1. Test frequency : L : 100KHz /0.25V.
 2. All test data referenced to 25°C ambient.
 3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
 4. I sat: The current will cause L0 to drop approximately 30% typical.
 5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
 6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
- The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
 8. Special inquiries besides the above common used types can be met on your requirement.

■ ELECTRICAL CHARACTERISTICS

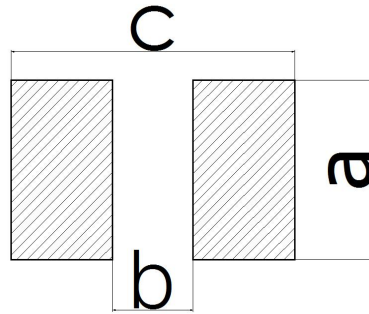
STPI170805

Part Number	L (μ H)	DCR (m Ω)		I sat(A)	I rms(A)
		TYP	MAX		
STPI170805-R21M-T1	0.21	0.48	0.56	120.00	52.00
STPI170805-R22M-T1	0.22	0.41	0.46	100.00	54.00
STPI170805-R33M-T1	0.33	0.47	0.52	90.00	45.00
STPI170805-R47M-T1	0.47	0.90	1.00	70.00	38.00
STPI170805-R68M-T1	0.68	1.05	1.2	60.00	36.00

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. I rms: The current will cause the coil temperature rise approximately $\Delta T \leq 40^\circ\text{C}$.
4. I sat: The current will cause L0 to drop approximately 30% typical.
5. Operating Temperature Range $-40^\circ\text{C} \sim 125^\circ\text{C}$.
6. Storage temperature and Humidity range $-40^\circ\text{C} \sim 85^\circ\text{C} < 75\% \text{RH}$.
The product should be used within 6 months from the time of delivery.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

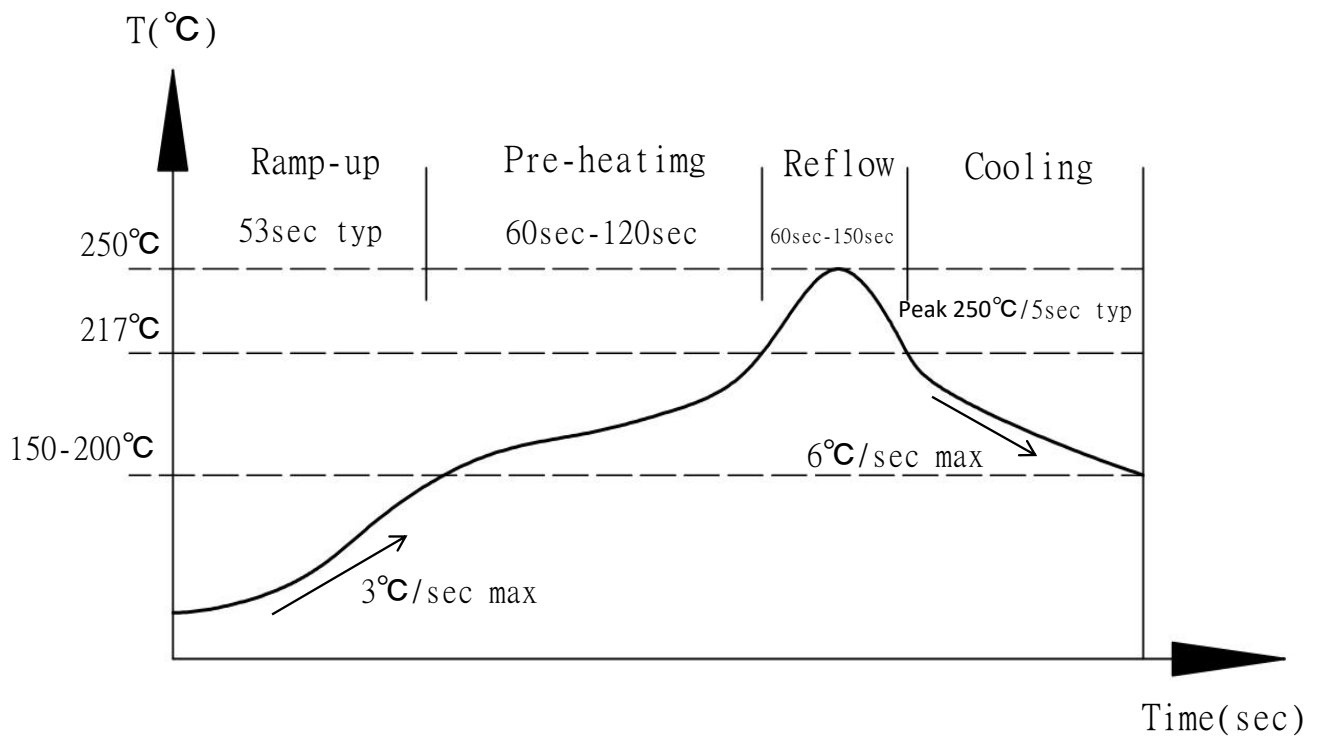
■ RECOMMENDED PCB LAYOUT



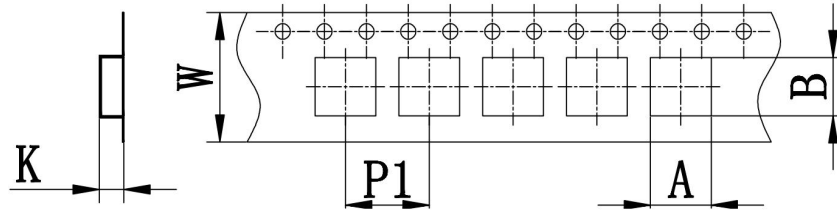
Unit : mm

SERIES	a	b	c
STPI04XX	2.5	2	5.2
STPI05XX	2.5	2.8	7
STPI06XX	3.4	3.7	8.1
STPI08XX	3.5	4.2	9.6
STPI10XX	4	6	13
STPI12XX	4.8	8.1	14.4
STPI0907XX	3.4	5.5	11.9
STPI1208XX	4.5	6	14
STPI1708XX	5	9	17.5

■ SOLDERING CONDITIONS



■ PACKAGE



SERIES	A (mm)	B (mm)	W (mm)	P1 (mm)	K (mm)	MPQ
STPI0412	4.4	5.0	12.0	8.0	1.4	3000
STPI0415	4.4	5.0	12.0	8.0	1.7	3000
STPI0418	4.4	5.1	12.0	8.0	2.2	3000
STPI0402	4.4	5.1	12.0	8.0	2.2	3000
STPI0424	4.4	5.1	12.0	8.0	2.7	3000
STPI0512	5.4	5.8	12.0	8.0	2.0	3000
STPI0515	5.4	5.8	12.0	8.0	2.0	3000
STPI0518	5.4	5.8	12.0	8.0	2.4	3000
STPI0502	5.4	5.8	12.0	8.0	2.4	3000
STPI0524	5.4	5.8	12.0	8.0	3.3	3000
STPI0503	5.4	5.8	12.0	8.0	3.3	2000
STPI0612	6.8	7.7	16.0	12.0	1.8	2000
STPI0615	6.8	7.7	16.0	12.0	1.8	2000
STPI0618	6.8	7.7	16.0	12.0	2.1	2000
STPI0602	6.8	7.7	16.0	12.0	2.1	2000
STPI0624	6.8	7.7	16.0	12.0	2.7	1000
STPI0603	6.8	7.7	16.0	12.0	3.3	1000
STPI0604	6.8	7.7	16.0	12.0	4.2	1000
STPI0605	6.8	7.7	16.0	12.0	5.3	1000
STPI0804	8.3	9.0	16.0	12.0	4.3	500
STPI0805	8.3	9.0	16.0	12.0	5.3	500
STPI1003	10.5	11.9	24.0	16.0	3.2	500
STPI1004	10.5	11.9	24.0	16.0	4.2	500
STPI1005	10.5	11.9	24.0	16.0	5.2	500
STPI1235	12.9	14.8	24.0	16.0	3.8	500
STPI1204	12.9	14.8	24.0	16.0	4.4	500
STPI1205	12.9	14.8	24.0	16.0	5.2	500
STPI1206	12.9	14.8	24.0	16.0	6.8	250
STPI1264	12.9	14.8	24.0	16.0	6.8	250
STPI090705	7.2	11.5	24.0	16.0	5.4	500
STPI120803	8.0	13.6	24.0	16.0	3.3	500
STPI120804	8.0	13.6	24.0	16.0	4.3	500
STPI170805	9.2	17.2	32.0	16.0	5.3	500

SMD Power inductor SPEB series
SMD パワーインダクタ SPEB シリーズ
P.43～87

■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

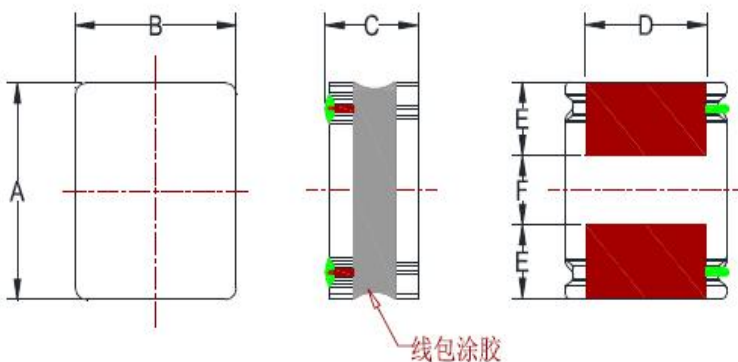
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

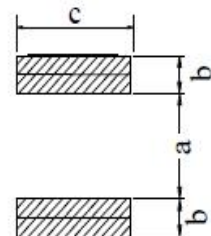
SPEB 2512 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB2512	2.5±0.2	2.0±0.2	1.2±0.1	1.5 Typ	0.8 Typ	0.8 Typ

a	b	c
mm	mm	mm
0.80	0.85	2.00

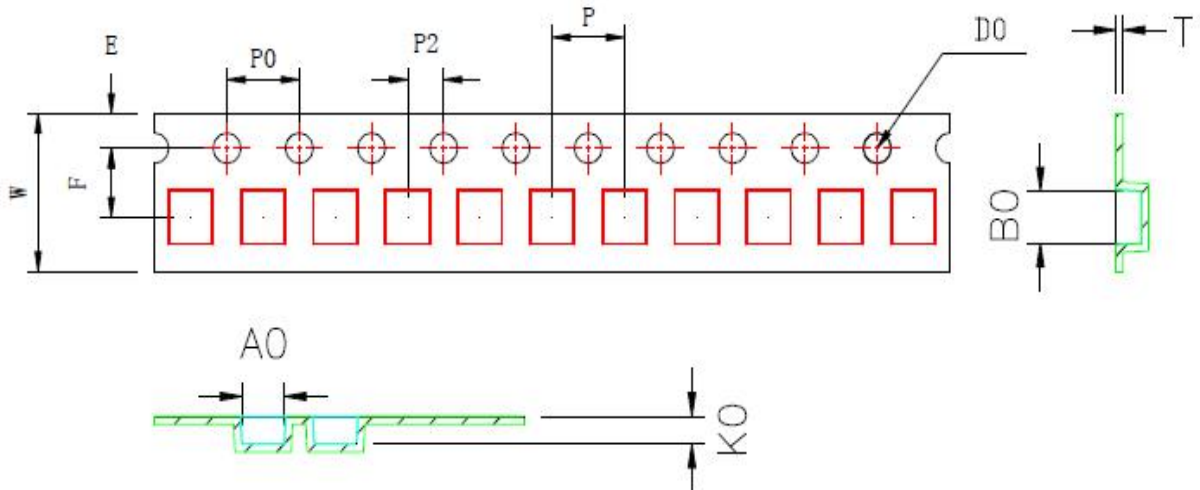
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB2512-R33N-XX	0.33 (±30%)	40	4.30	2.35	
SPEB2512-R68N-XX	0.68 (±30%)	73	2.70	1.73	
SPEB2512-1R0N-XX	1.0 (±30%)	85	2.68	1.58	
SPEB2512-1R5M-XX	1.5	113	2.24	1.40	
SPEB2512-2R2M-XX	2.2	165	1.85	1.15	
SPEB2512-3R3M-XX	3.3	200	1.61	1.04	
SPEB2512-4R7M-XX	4.7	315	1.18	0.84	
SPEB2512-5R6M-XX	5.6	330	1.10	0.73	
SPEB2512-6R8M-XX	6.8	447	0.98	0.69	
SPEB2512-8R2M-XX	8.2	506	0.98	0.65	
SPEB2512-100M-XX	10.0	575	0.88	0.62	
SPEB2512-150M-XX	15.0	900	0.62	0.40	

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)

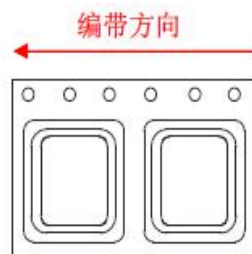


ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	2.35	2.65	1.4	4.00	3.5	1.75	1.50	4.00	2.00	0.25
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION:

2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

编带方向，如下图所示：



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

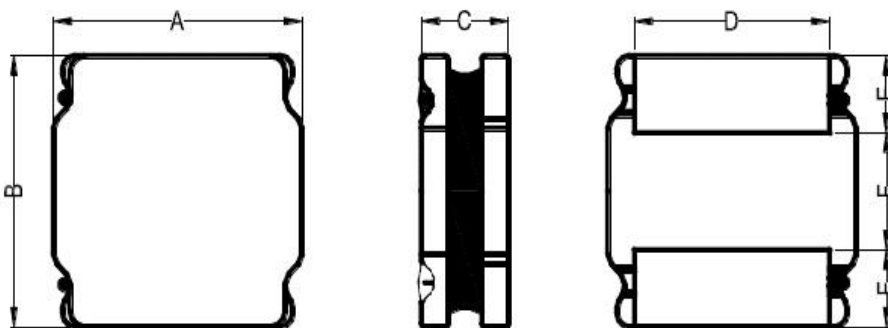
- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

■ Product Identification

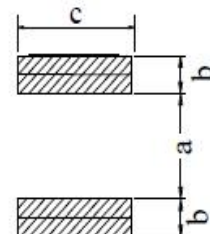
SPEB 3010 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB3010	3.0±0.2	3.0±0.2	1.0 Max	2.5 Typ	0.75 Typ	1.5 Typ

a	b	c
mm	mm	mm
1.50	0.80	2.70

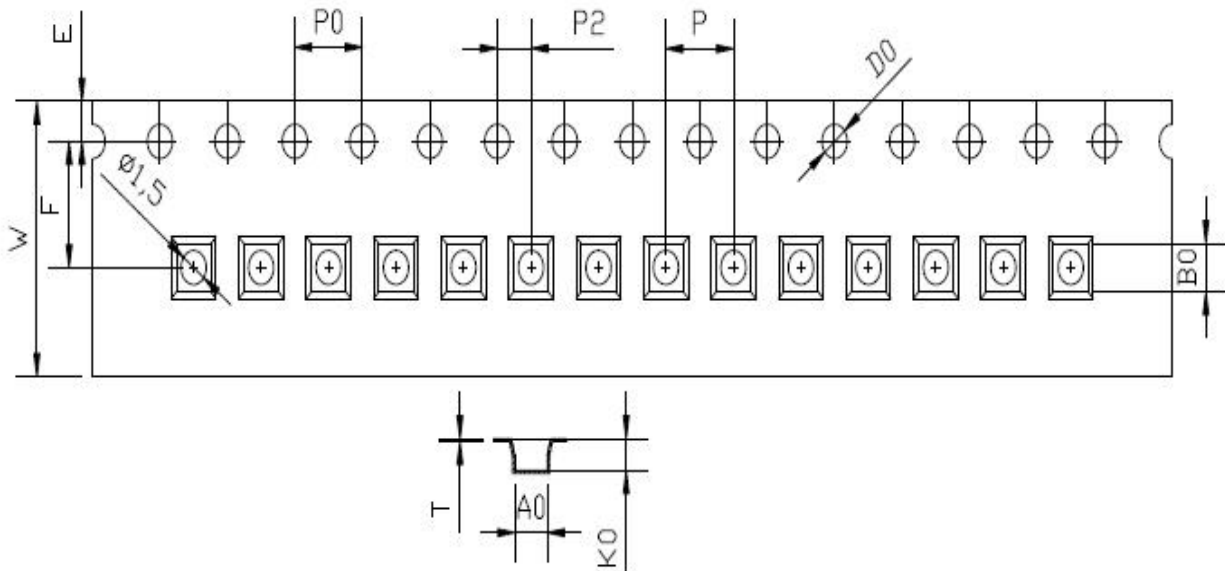
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB3010-1R0N-XX	1.0 (±30%)	65	1.40	1.45	
SPEB3010-1R5N-XX	1.5 (±30%)	80	1.27	1.30	
SPEB3010-2R2M-XX	2.2	110	1.15	1.09	
SPEB3010-3R3M-XX	3.3	145	0.97	0.96	
SPEB3010-4R7M-XX	4.7	225	0.75	0.77	
SPEB3010-6R8M-XX	6.8	305	0.65	0.66	
SPEB3010-100M-XX	10.0	400	0.60	0.58	
SPEB3010-150M-XX	15.0	610	0.42	0.47	
SPEB3010-220M-XX	22.0	930	0.35	0.38	

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)

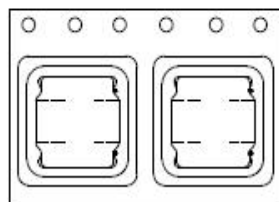


ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	3.0	3.0	1.4	4.00	3.50	1.75	1.50	4.00	2.00	0.25
TOLE	±0.1	±0.05	±0.05	±0.05	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION:

2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

编带方向，如右图所示



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

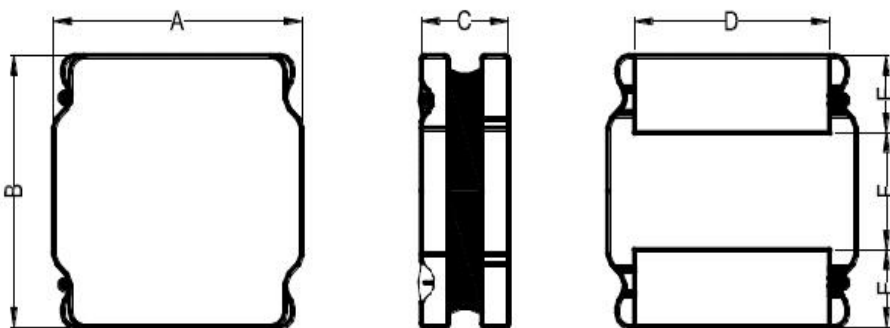
- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

■ Product Identification

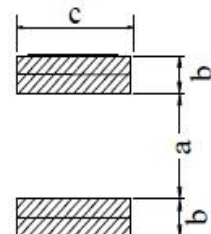
SPEB 3012 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB3012	3.0±0.2	3.0±0.2	1.2 Max	2.5 Typ	0.75 Typ	1.5 Typ

a	b	c
mm	mm	mm
1.50	0.80	2.70

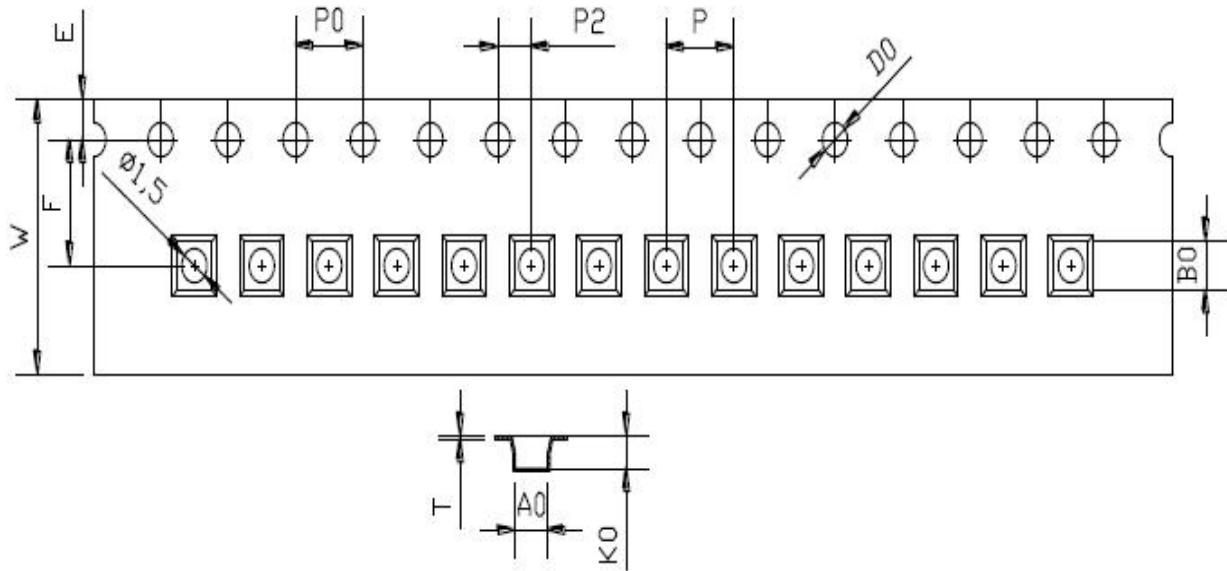
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB3012-R33N-XX	0.33 (±30%)	21	3.00	2.90	
SPEB3012-R47N-XX	0.47 (±30%)	33	2.20	2.20	
SPEB3012-R82N-XX	0.82 (±30%)	40	2.05	2.10	
SPEB3012-1R0N-XX	1.0 (±30%)	48	1.90	2.00	
SPEB3012-1R5N-XX	1.5 (±30%)	55	1.62	1.85	
SPEB3012-2R2M-XX	2.2	75	1.20	1.55	
SPEB3012-3R3M-XX	3.3	100	1.05	1.35	
SPEB3012-4R7M-XX	4.7	120	0.90	1.25	
SPEB3012-5R6M-XX	5.6	160	0.80	1.10	
SPEB3012-6R8M-XX	6.8	190	0.75	1.00	
SPEB3012-100M-XX	10.0	265	0.60	0.89	
SPEB3012-150M-XX	15.0	430	0.45	0.72	
SPEB3012-220M-XX	22.0	630	0.42	0.55	
SPEB3012-270M-XX	27.0	800	0.35	0.45	
SPEB3012-330M-XX	33.0	875	0.36	0.46	
SPEB3012-470M-XX	47.0	1450	0.27	0.35	

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)

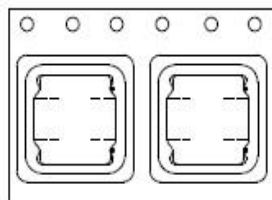


ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	3.3	3.3	1.6	4.00	3.50	1.75	1.50	4.00	2.00	0.25
TOLE	±0.1	±0.05	±0.05	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION:

2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

编带方向，如右图所示



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

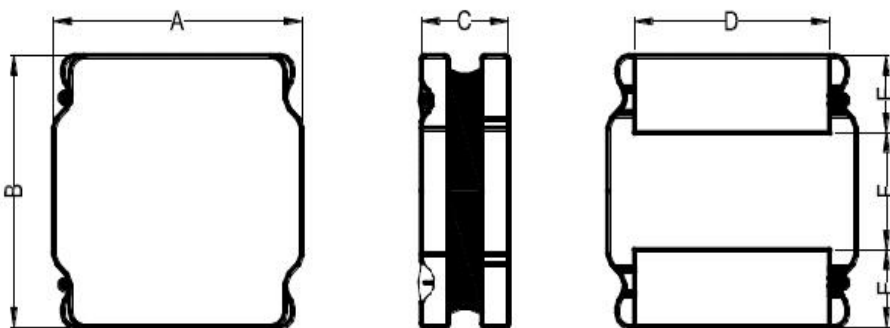
- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

■ Product Identification

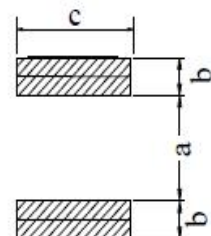
SPEB 3015 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB3015	3.0±0.2	3.0±0.2	1.5 Max	2.5 Typ	0.75 Typ	1.5 Typ

a	b	c
mm	mm	mm
1.50	0.80	2.70

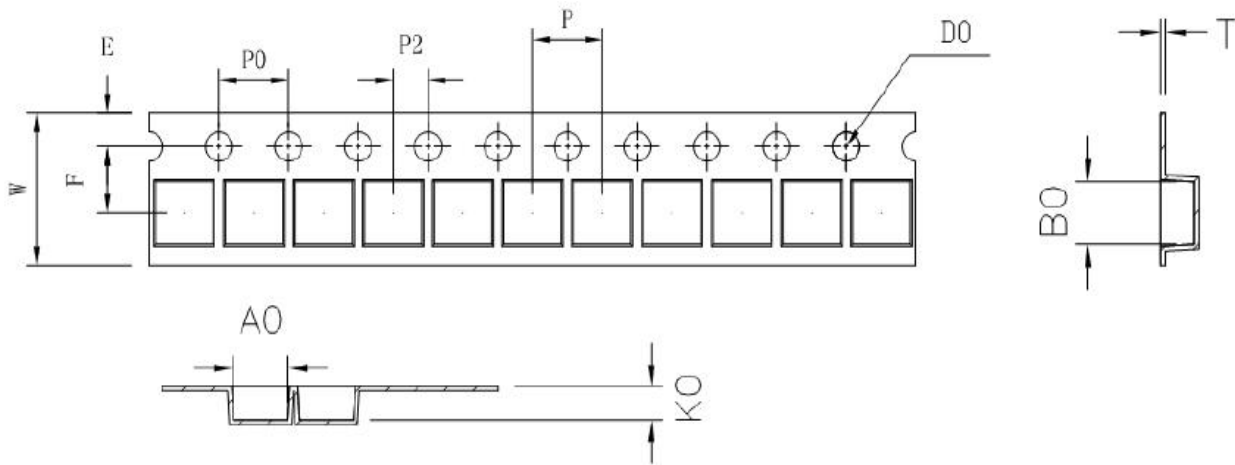
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB3015-R30N-XX	0.30 (±30%)	15	4.60	3.50	
SPEB3015-R47N-XX	0.47 (±30%)	20	4.00	3.50	
SPEB3015-R56N-XX	0.56 (±30%)	20	3.30	2.80	
SPEB3015-1R0N-XX	1.0 (±30%)	30	2.32	2.10	
SPEB3015-1R5N-XX	1.5 (±30%)	50	2.00	1.70	
SPEB3015-1R8N-XX	1.8 (±30%)	55	1.75	1.65	
SPEB3015-2R2N-XX	2.2 (±30%)	60	1.60	1.60	
SPEB3015-2R7N-XX	2.7 (±30%)	70	1.52	1.50	
SPEB3015-3R3M-XX	3.3	80	1.32	1.36	
SPEB3015-3R9M-XX	3.9	108	1.20	1.10	
SPEB3015-4R7M-XX	4.7	125	1.10	1.09	
SPEB3015-5R6M-XX	5.6	170	1.05	1.00	
SPEB3015-6R8M-XX	6.8	200	0.85	0.85	
SPEB3015-8R2M-XX	8.2	230	0.80	0.75	
SPEB3015-100M-XX	10.0	250	0.72	0.77	
SPEB3015-120M-XX	12.0	288	0.70	0.68	
SPEB3015-150M-XX	15.0	350	0.66	0.65	
SPEB3015-180M-XX	18.0	430	0.56	0.59	
SPEB3015-220M-XX	22.0	460	0.52	0.57	
SPEB3015-270M-XX	27.0	630	0.48	0.46	
SPEB3015-330M-XX	33.0	780	0.44	0.42	
SPEB3015-470M-XX	47.0	1200	0.35	0.32	

Note:

1. Test frequency : L : 100KHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)

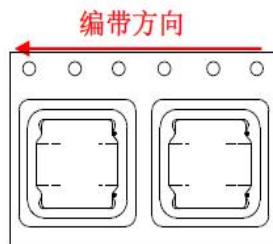


TEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	3.3	3.3	1.9	4.00	3.50	1.75	1.50	4.00	2.00	0.25
TOLE	±0.3	±0.05	±0.05	±0.05	±0.1	±0.05	±0.1	+0.1	±0.1	±0.05	±0.05

PACKAGE SPECIFICATION:

2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

编带方向，如下图所示



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat) realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

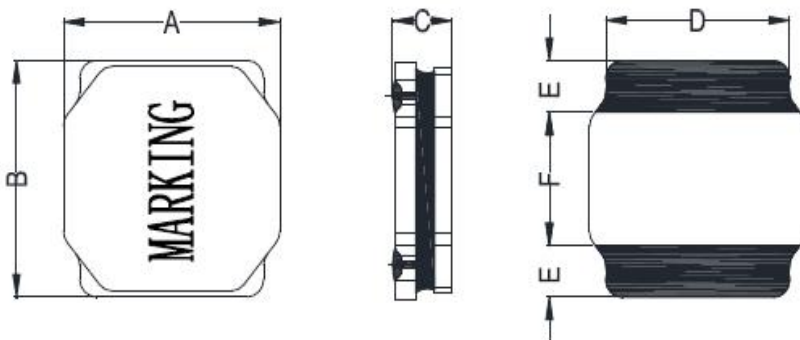
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

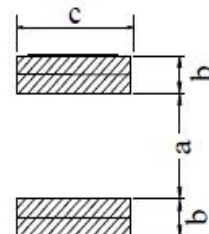
SPEB 4010 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB4010	4.0±0.2	4.0±0.2	1.0 Max	3.3 Typ	0.8 Typ	1.6 Typ

a	b	c
mm	mm	mm
1.90	1.10	3.70

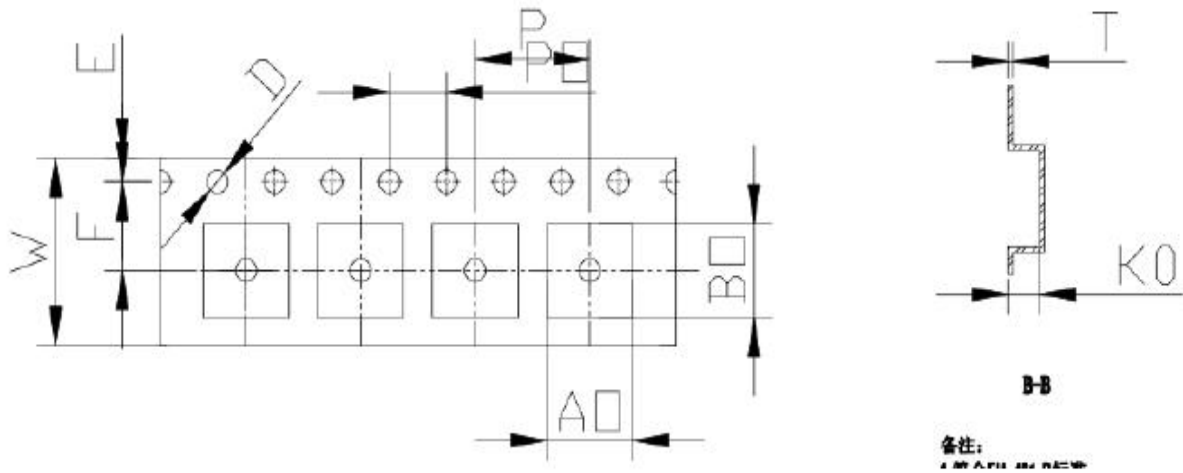
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB4010-1R0N-XX	1.0 (±30%)	56	2.00	1.90	1R0
SPEB4010-1R5N-XX	1.5 (±30%)	70	1.68	1.70	1R5
SPEB4010-2R2M-XX	2.2	85	1.20	1.45	2R2
SPEB4010-3R3M-XX	3.3	115	1.10	1.20	3R3
SPEB4010-4R7M-XX	4.7	150	0.95	0.90	4R7
SPEB4010-6R8M-XX	6.8	220	0.85	0.85	6R8
SPEB4010-100M-XX	10.0	300	0.70	0.70	100

Note:

1. Test frequency : L : 100KHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)

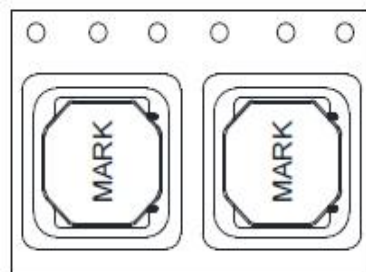


ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	4.3	4.3	1.25	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

Packaging Quantity:

4.5KPCS/ Reel 13.5KPCS/ Inner Box 40.5KPCS/ Outer Box

编带方向，如右图所示



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

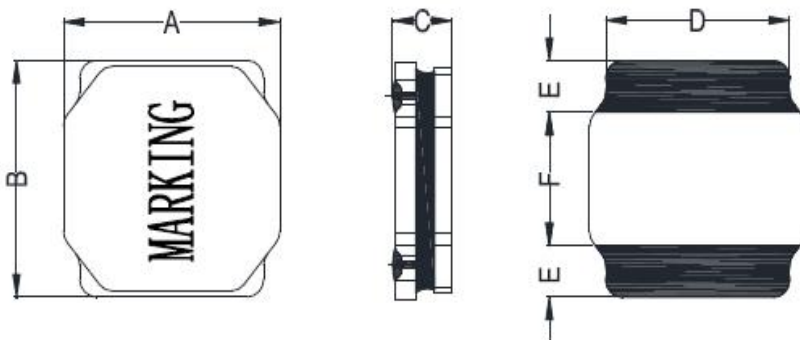
- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

■ Product Identification

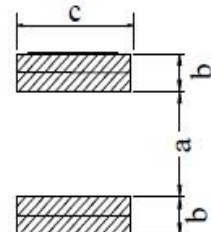
SPEB 4012 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB4012	4.0±0.2	4.0±0.2	1.2 Max	3.3 Typ	1.25 Typ	1.5 Typ

a	b	c
mm	mm	mm
1.90	1.10	3.70

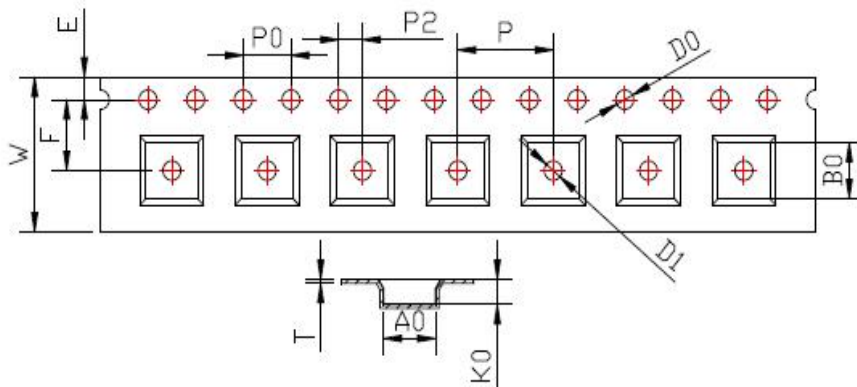
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB4012-1R0N-XX	1.0 (±30%)	55	2.80	2.00	1R0
SPEB4012-1R5N-XX	1.5 (±30%)	65	2.20	1.80	1R5
SPEB4012-2R2M-XX	2.2	100	1.76	1.32	2R2
SPEB4012-3R3M-XX	3.3	100	1.35	1.32	3R3
SPEB4012-4R7M-XX	4.7	163	1.15	1.00	4R7
SPEB4012-5R6M-XX	5.6	185	1.00	1.00	5R6
SPEB4012-6R8M-XX	6.8	228	1.15	0.85	6R8
SPEB4012-100M-XX	10.0	234	0.85	0.80	100
SPEB4012-150M-XX	15.0	400	0.68	0.65	150
SPEB4012-180M-XX	18.0	550	0.60	0.55	180
SPEB4012-220M-XX	22.0	690	0.50	0.49	220
SPEB4012-330M-XX	33.0	1000	0.50	0.42	330
SPEB4012-470M-XX	47.0	1430	0.35	0.37	470

Note:

1. Test frequency : L : 100KHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)

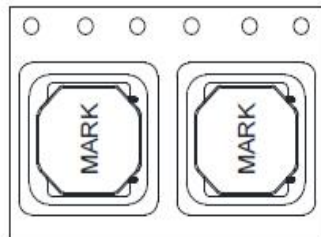


ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	4.3	4.3	2.25	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION:

4.5KPCS/ Reel 13.5KPCS/ Inner Box 40.5KPCS/ Outer Box

编带方向，如右图所示



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

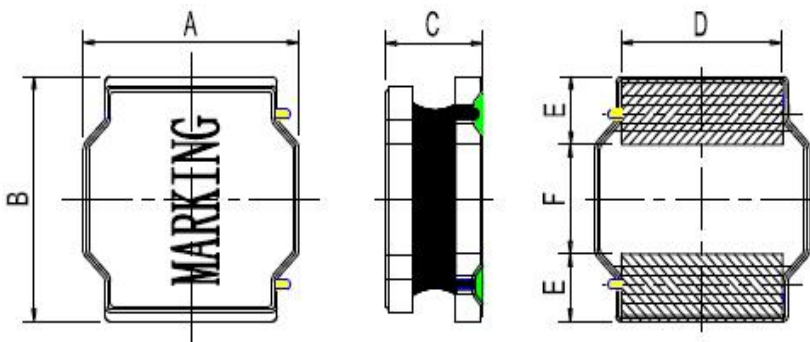
- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

■ Product Identification

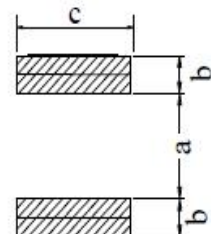
SPEB **4018** - **1R0** **N** **XX**
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB4018	4.0±0.2	4.0±0.2	1.85 Max	3.3 Typ	1.0 Typ	2.0 Typ

a	b	c
mm	mm	mm
1.90	1.10	3.70



All the data listed in this catalogue are for reference only, TOPSUN reserves the right to alter or revise the specifications without prior notification.

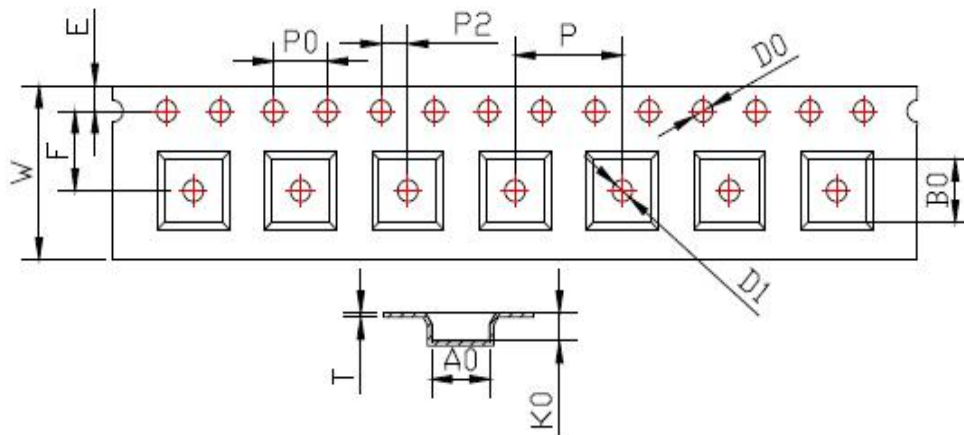
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB4018-R56N-XX	0.56 (±30%)	18	6.50	3.50	1R0
SPEB4018-1R0N-XX	1.0 (±30%)	23	4.50	2.50	1R5
SPEB4018-1R2N-XX	1.2 (±30%)	28	4.30	2.40	2R2
SPEB4018-1R5N-XX	1.5 (±30%)	33	3.35	2.34	3R3
SPEB4018-1R8N-XX	1.8 (±30%)	44	3.00	2.00	4R7
SPEB4018-2R2M-XX	2.2	44	2.70	2.00	5R6
SPEB4018-3R3M-XX	3.3	70	2.45	1.90	6R8
SPEB4018-4R7M-XX	4.7	90	1.70	1.70	100
SPEB4018-5R6M-XX	5.6	103	1.60	1.50	150
SPEB4018-6R8M-XX	6.8	124	1.45	1.30	180
SPEB4018-8R2M-XX	8.2	180	1.40	1.15	220
SPEB4018-100M-XX	10.0	200	1.30	1.10	330
SPEB4018-120M-XX	12.0	230	1.15	0.95	470
SPEB4018-150M-XX	15.0	268	0.94	0.92	470
SPEB4018-180M-XX	18.0	320	0.86	0.85	470
SPEB4018-220M-XX	22.0	390	0.80	0.80	470
SPEB4018-330M-XX	33.0	560	0.65	0.60	470
SPEB4018-470M-XX	47.0	850	0.57	0.50	470

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)

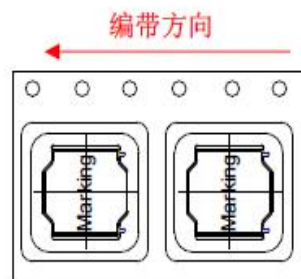


ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	4.35	4.35	1.95	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION:

3KPCS/ Reel 9KPCS/ Inner Box 27KPCS/ Outer Box

编带方向 ，如下图所示



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

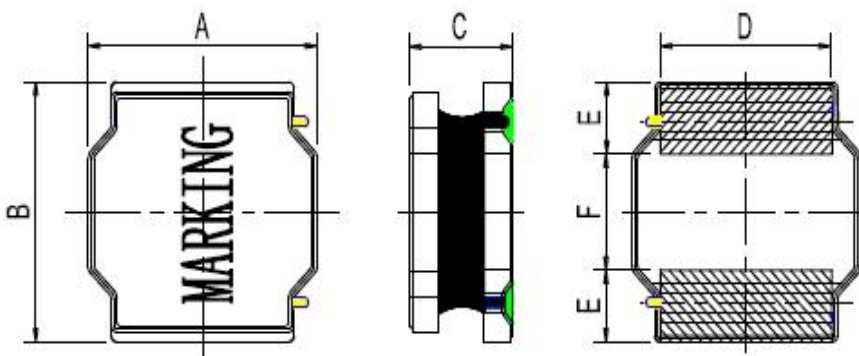
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

SPEB 4020 - 1R0 N XX
 ① ② ③ ④ ⑤

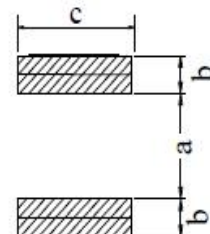
- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB4020	4.0±0.2	4.0±0.2	2.1 Max	3.3 Typ	1.0 Typ	2.0 Typ

Recommend PC Board Pattern



a	b	c
mm	mm	mm
1.90	1.10	3.70

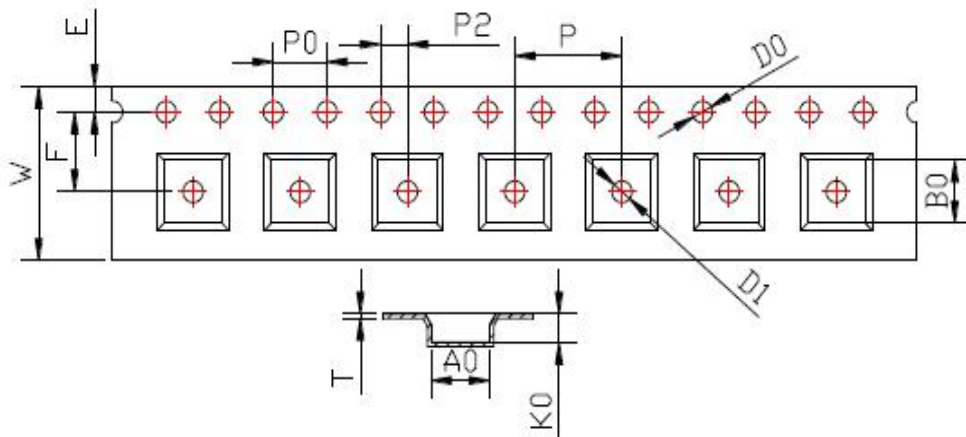
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB4020-R33N-XX	0.33 (±30%)	13	7.50	3.30	R33
SPEB4020-R47N-XX	0.47 (±30%)	18	7.50	3.30	R47
SPEB4020-1R0N-XX	1.0 (±30%)	28	5.10	2.15	1R0
SPEB4020-1R2N-XX	1.2 (±30%)	29	4.70	2.10	1R2
SPEB4020-1R5N-XX	1.5 (±30%)	35	4.45	1.98	1R5
SPEB4020-1R8N-XX	1.8 (±30%)	45	4.00	1.90	1R8
SPEB4020-2R2M-XX	2.2	45	3.40	1.85	2R2
SPEB4020-3R3M-XX	3.3	70	3.20	1.40	3R3
SPEB4020-4R7M-XX	4.7	80	2.35	1.34	4R7
SPEB4020-5R6M-XX	5.6	95	2.20	1.22	5R6
SPEB4020-6R8M-XX	6.8	125	2.00	1.04	6R8
SPEB4020-8R2M-XX	8.2	150	1.75	1.00	8R2
SPEB4020-100M-XX	10.0	165	1.60	0.90	100
SPEB4020-120M-XX	12.0	175	1.50	0.88	120
SPEB4020-150M-XX	15.0	230	1.35	0.77	150
SPEB4020-220M-XX	22.0	350	1.05	0.62	220
SPEB4020-330M-XX	33.0	500	0.85	0.49	330
SPEB4020-470M-XX	47.0	710	0.74	0.44	470
SPEB4020-560M-XX	56.0	800	0.68	0.40	560
SPEB4020-680M-XX	68.0	1250	0.60	0.35	680

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)

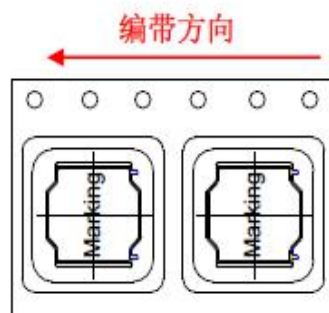


ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	4.3	4.3	2.25	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION:

3KPCS/ Reel 9KPCS/ Inner Box 27KPCS/ Outer Box

编带方向，如下图所示



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

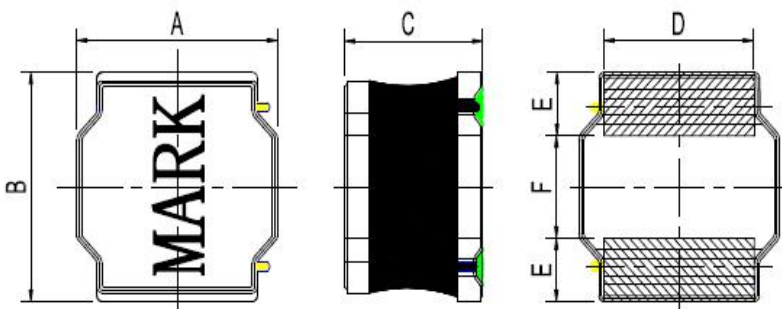
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

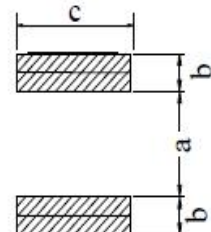
SPEB 4030 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB4030	4.0±0.2	4.0±0.2	3.0 MAX	3.3 Typ	1.0 Typ	2.0 Typ

a	b	c
mm	mm	mm
1.9	1.1	3.7

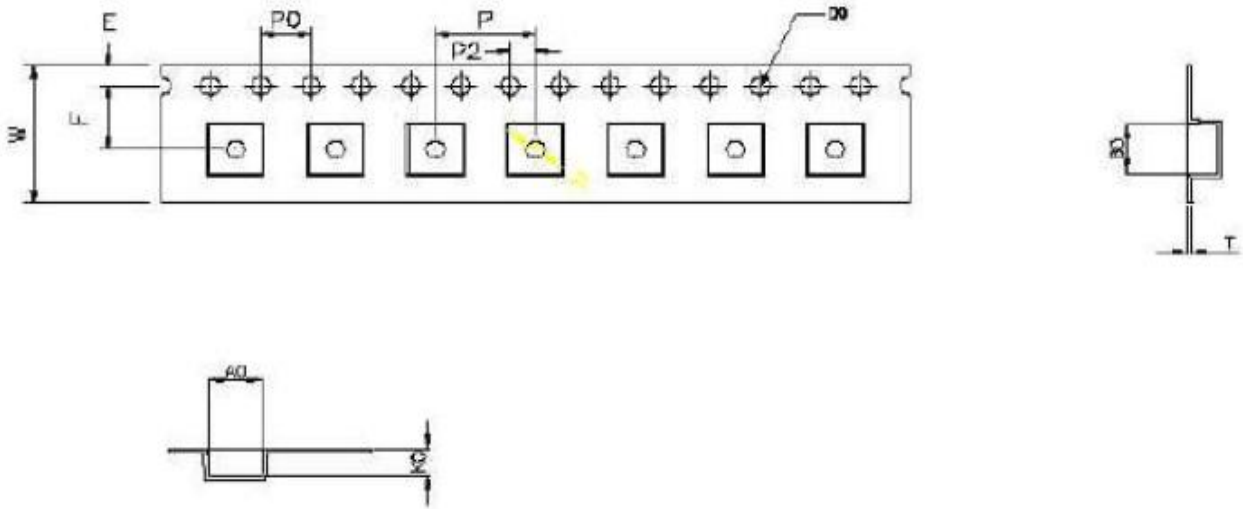
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB4030-R47N-XX	0.47 (±30%)	11	7.50	4.00	R47
SPEB4030-R56N-XX	0.56 (±30%)	14	6.00	4.00	R56
SPEB4030-1R0N-XX	1.0 (±30%)	15	5.90	3.40	1R0
SPEB4030-1R5N-XX	1.5 (±30%)	25	4.85	3.30	1R5
SPEB4030-1R8N-XX	1.8 (±30%)	30	4.25	3.20	1R8
SPEB4030-2R2M-XX	2.2	35	4.10	2.95	2R2
SPEB4030-3R3M-XX	3.3	40	3.30	2.40	3R3
SPEB4030-3R6M-XX	3.6	53	3.10	2.30	3R6
SPEB4030-3R9M-XX	3.9	57	3.00	2.10	3R9
SPEB4030-4R7M-XX	4.7	60	2.90	2.00	4R7
SPEB4030-5R6M-XX	5.6	70	2.75	1.95	5R6
SPEB4030-6R8M-XX	6.8	75	2.60	1.70	6R8
SPEB4030-7R5M-XX	7.5	90	2.20	1.65	7R5
SPEB4030-8R2M-XX	8.2	100	2.10	1.60	8R2
SPEB4030-100M-XX	10.0	115	1.95	1.50	100
SPEB4030-120M-XX	12.0	140	1.70	1.35	120
SPEB4030-150M-XX	15.0	190	1.65	1.15	150
SPEB4030-180M-XX	18.0	215	1.40	1.10	180
SPEB4030-220M-XX	22.0	225	1.30	1.00	220
SPEB4030-330M-XX	33.0	330	1.10	0.84	330
SPEB4030-470M-XX	47.0	500	0.90	0.72	470
SPEB4030-560M-XX	56.0	560	0.85	0.65	560
SPEB4030-680M-XX	68.0	750	0.75	0.55	680
SPEB4030-820M-XX	82.0	950	0.68	0.50	820
SPEB4030-101M-XX	100.0	1150	0.60	0.45	101
SPEB4030-151M-XX	150.0	2350	0.50	0.35	151
SPEB4030-181M-XX	180.0	2500	0.40	0.35	181
SPEB4030-221M-XX	220.0	3000	0.40	0.30	221
SPEB4030-331M-XX	330.0	4400	0.30	0.23	331
SPEB4030-471M-XX	470.0	5500	0.30	0.20	471

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L0 to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)

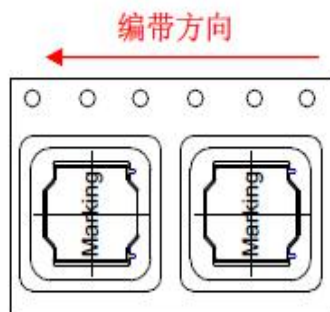


ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	4.5	4.5	3.2	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION:

2KPCS/ Reel 6KPCS/ Inner Box 18KPCS/ Outer Box

编带方向，如下图所示



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

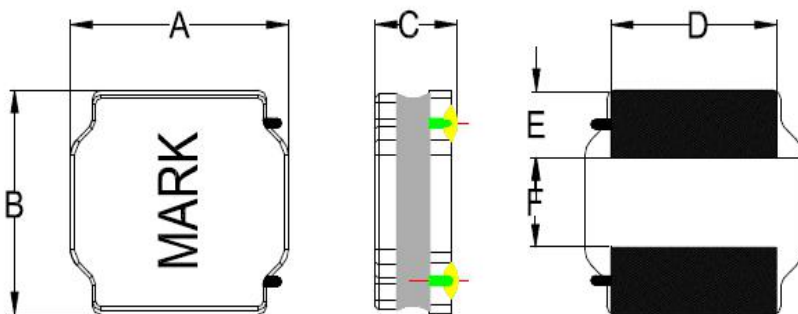
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

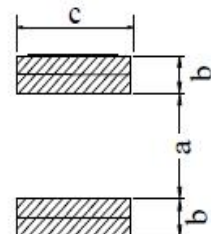
SPEB 5020 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB5020	5.0±0.2	5.0±0.2	2.2 Max	4.0Typ	1.35 Typ	2.3 Typ

a	b	c
mm	mm	mm
2.30	1.40	4.20

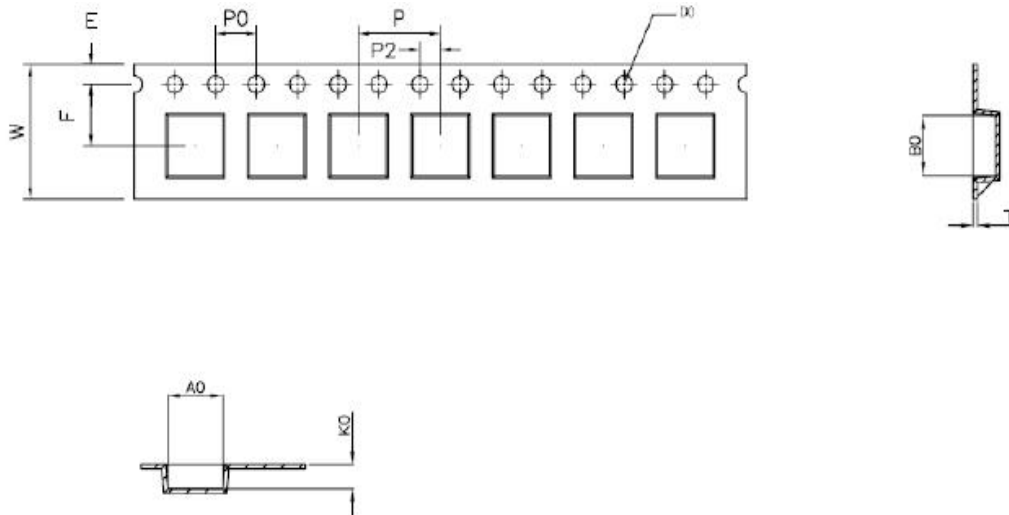
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	µH	mΩ	A	A	
SPEB5020-R22N-XX	0.22 (±30%)	11	6.00	5.00	R22
SPEB5020-R24N-XX	0.24 (±30%)	11	6.00	5.00	R24
SPEB5020-R33N-XX	0.33 (±30%)	15	7.50	3.95	R33
SPEB5020-R47N-XX	0.47 (±30%)	15	4.85	3.95	R47
SPEB5020-1R0N-XX	1.0 (±30%)	20	4.33	3.70	1R0
SPEB5020-1R2N-XX	1.2 (±30%)	25	4.20	3.50	1R2
SPEB5020-1R5N-XX	1.5 (±30%)	26	4.10	3.20	1R5
SPEB5020-1R8N-XX	1.8 (±30%)	30	4.00	3.00	1R8
SPEB5020-2R2N-XX	2.2 (±30%)	38	3.85	2.90	2R2
SPEB5020-2R7N-XX	2.7 (±30%)	45	3.50	2.40	2R7
SPEB5020-3R3N-XX	3.3 (±30%)	46	3.25	2.40	3R3
SPEB5020-3R6N-XX	3.6 (±30%)	48	2.90	2.30	3R6
SPEB5020-3R9N-XX	3.9 (±30%)	50	2.90	2.15	3R9
SPEB5020-4R7M-XX	4.7	65	2.40	2.05	4R7
SPEB5020-5R6M-XX	5.6	72	2.30	1.85	5R6
SPEB5020-6R8M-XX	6.8	92	2.10	1.70	6R8
SPEB5020-8R2M-XX	8.2	100	1.90	1.60	8R2
SPEB5020-100M-XX	10.0	125	1.80	1.50	100
SPEB5020-150M-XX	15.0	180	1.44	1.25	150
SPEB5020-220M-XX	22.0	250	1.18	1.05	220
SPEB5020-270M-XX	27.0	300	1.10	1.00	270
SPEB5020-330M-XX	33.0	370	0.97	0.83	330
SPEB5020-470M-XX	47.0	560	0.81	0.70	470
SPEB5020-680M-XX	68.0	850	0.70	0.53	680
SPEB5020-820M-XX	82.0	950	0.65	0.50	820
SPEB5020-101M-XX	100.0	1100	0.57	0.43	101
SPEB5020-151M-XX	150.0	1500	0.41	0.40	151
SPEB5020-221M-XX	220.0	2230	0.35	0.30	221

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L0 to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

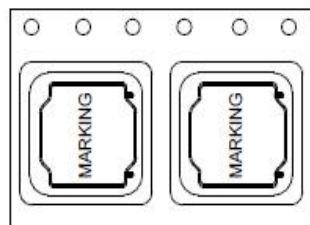
■ Packaging (mm)



ITEM	W	A0	B1	K0	P	F	E	D0	P0	P2	T
DIM	12.00	5.4	5.4	2.3	8.00	5.50	1.75	1.50	4.00	2.00	0.35
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.15	±0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION :

3KPCS/Reel 9KPCS/Inner Box 27KPCS/Outer Box



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

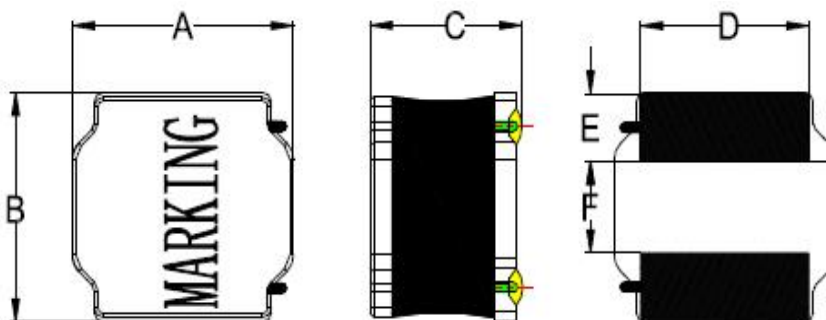
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

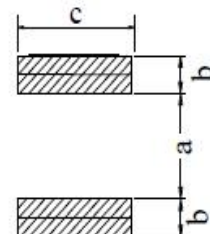
SPEB 5040 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB5040	5.0±0.2	5.0±0.2	4.0 Max	4.0Typ	1.35 Typ	2.3 Typ

a	b	c
mm	mm	mm
2.30	1.40	4.20

■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB5040-1R0N-XX	1.0 (±30%)	13	7.35	4.90	1R0
SPEB5040-1R5N-XX	1.5 (±30%)	15	6.30	4.30	1R5
SPEB5040-1R8N-XX	1.8 (±30%)	18	6.10	3.90	1R8
SPEB5040-2R2N-XX	2.2 (±30%)	19	4.90	3.80	2R2
SPEB5040-2R7N-XX	2.7 (±30%)	22	4.30	3.60	2R7
SPEB5040-3R3N-XX	3.3 (±30%)	24	3.95	3.40	3R3
SPEB5040-3R9N-XX	3.9 (±30%)	27	3.55	3.20	3R9
SPEB5040-4R7N-XX	4.7 (±30%)	30	3.50	3.00	4R7
SPEB5040-5R6M-XX	5.6	33	3.20	2.80	5R6
SPEB5040-6R8M-XX	6.8	43	2.90	2.50	6R8
SPEB5040-8R2M-XX	8.2	55	3.00	2.30	8R2
SPEB5040-100M-XX	10.0	64	2.35	2.10	100
SPEB5040-150M-XX	15.0	86	2.00	2.00	150
SPEB5040-220M-XX	22.0	129	1.60	1.50	220
SPEB5040-270M-XX	27.0	165	1.50	1.30	270
SPEB5040-330M-XX	33.0	188	1.30	1.20	330
SPEB5040-390M-XX	39.0	225	1.20	1.10	390
SPEB5040-470M-XX	47.0	270	1.10	1.00	470
SPEB5040-560M-XX	56.0	375	1.00	0.90	560
SPEB5040-680M-XX	68.0	400	0.90	0.80	680
SPEB5040-101M-XX	100.0	560	0.75	0.70	101

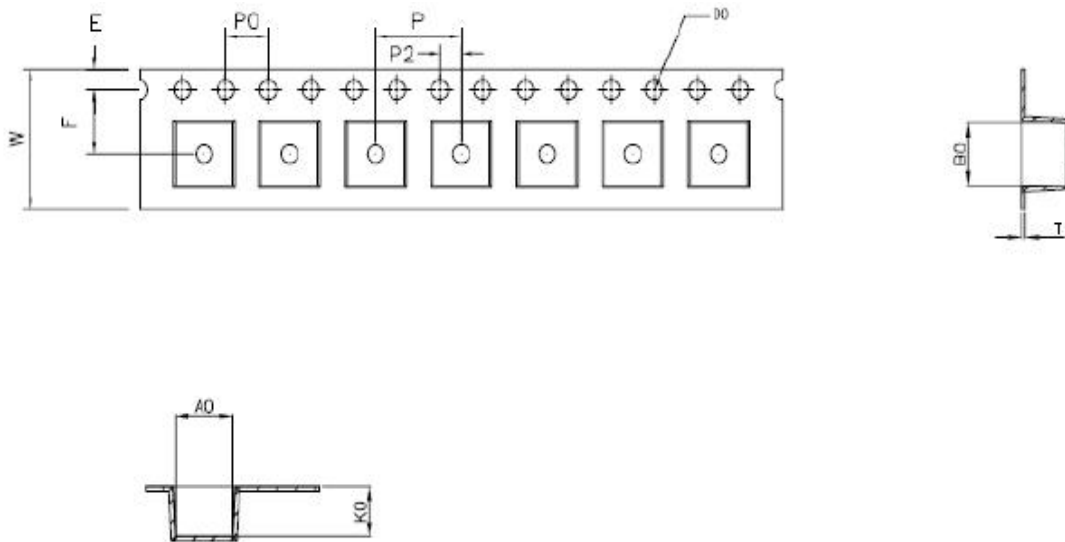
Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L0 to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C < 75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.



All the data listed in this catalogue are for reference only, TOPSUN reserves the right to alter or revise the specifications without prior notification.

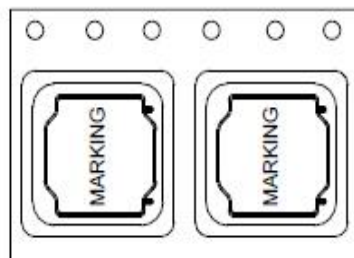
■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	5.3	5.3	4.3	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.4
TOLE	±0.3	±0.1	±0.1	±0.15	±0.1	±0.15	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION :

1.5KPCS/Reel 4.5KPCS/Inner Box 13.5KPCS/Outer Box



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

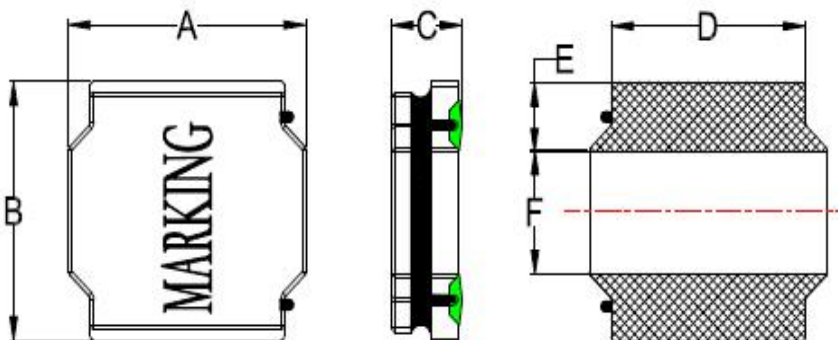
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

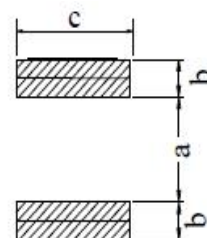
SPEB **6020** - **1R0** **N** **XX**
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB6020	6.0±0.3	6.0±0.3	2.0 Max	4.9Typ	1.55 Typ	2.9 Typ

a	b	c
mm	mm	mm
2.80	1.70	5.70

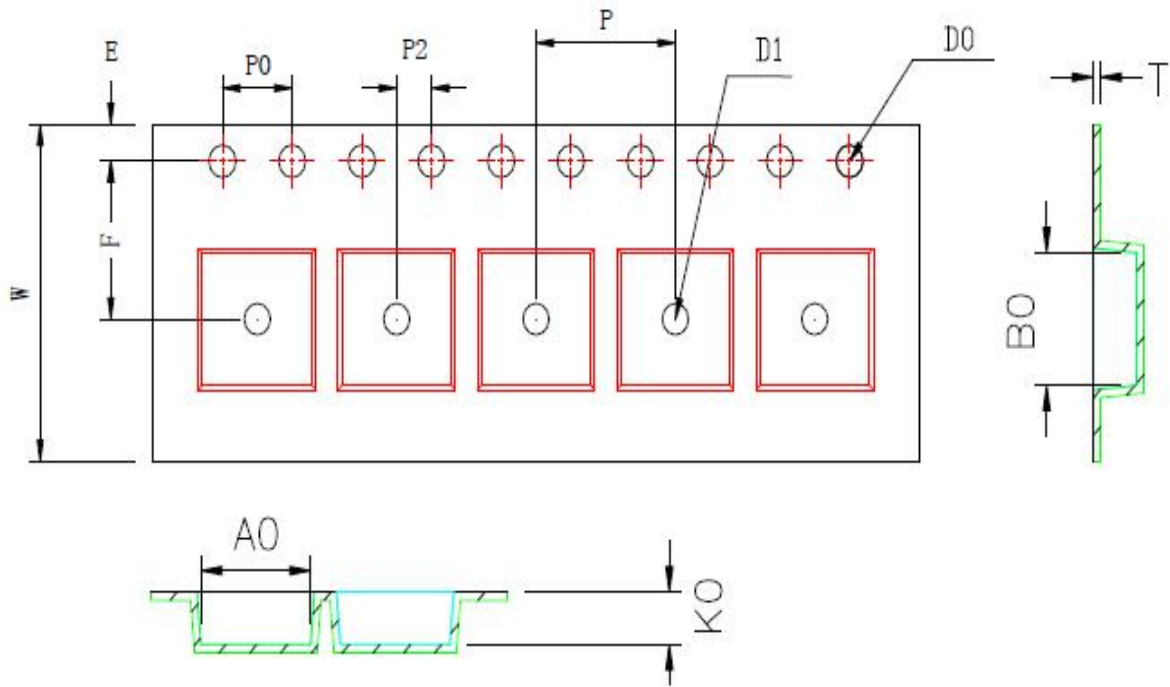
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB6020-R68N-XX	0.68 (±30%)	15	7.50	3.80	R68
SPEB6020-1R0N-XX	1.0 (±30%)	20	4.80	3.50	1R0
SPEB6020-1R2N-XX	1.2 (±30%)	20	4.30	3.50	1R2
SPEB6020-1R5N-XX	1.5 (±30%)	25	4.30	3.20	1R5
SPEB6020-2R2N-XX	2.2 (±30%)	35	3.75	2.75	2R2
SPEB6020-3R3N-XX	3.3 (±30%)	45	3.15	2.60	3R3
SPEB6020-4R7N-XX	4.7 (±30%)	58	3.00	2.00	4R7
SPEB6020-5R6M-XX	5.6	70	2.40	1.90	5R6
SPEB6020-6R8M-XX	6.8	85	2.20	1.80	6R8
SPEB6020-100M-XX	10.0	120	1.75	1.40	100
SPEB6020-150M-XX	15.0	160	1.50	1.20	150
SPEB6020-220M-XX	22.0	240	1.25	1.00	220
SPEB6020-270M-XX	27.0	350	1.15	0.95	270
SPEB6020-330M-XX	33.0	400	1.10	0.90	330
SPEB6020-470M-XX	47.0	500	1.00	0.80	470
SPEB6020-680M-XX	68.0	815	0.80	0.68	680

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C < 75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

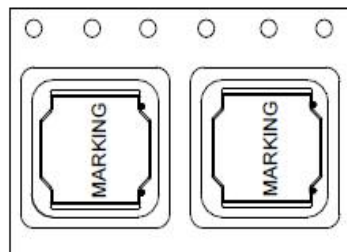
■ Packaging (mm)



ITEM	W	A0	B1	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	6.3	6.3	2.5	8.00	7.50	1.75	1.50	1.50	4.00	2.00	0.40
TOLE	± 0.3	± 0.1	± 0.1	± 0.1	± 0.1	± 0.15	± 0.1	+0.1	+0.1	± 0.1	± 0.1	± 0.05

PACKAGE SPECIFICATION :

3KPCS/Reel 9KPCS/Inner Box 27KPCS/Outer Box



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

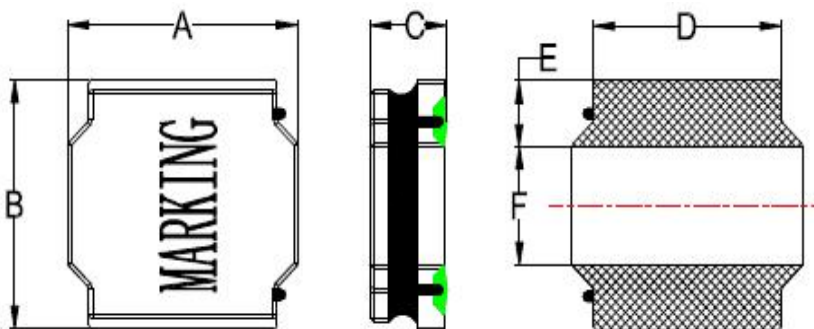
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

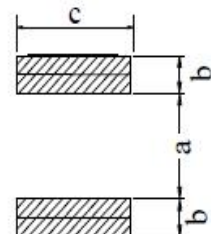
SPEB 6028 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB6028	6.0±0.3	6.0±0.3	2.8 Max	4.9Typ	1.55 Typ	2.9 Typ

a	b	c
mm	mm	mm
2.80	1.70	5.70

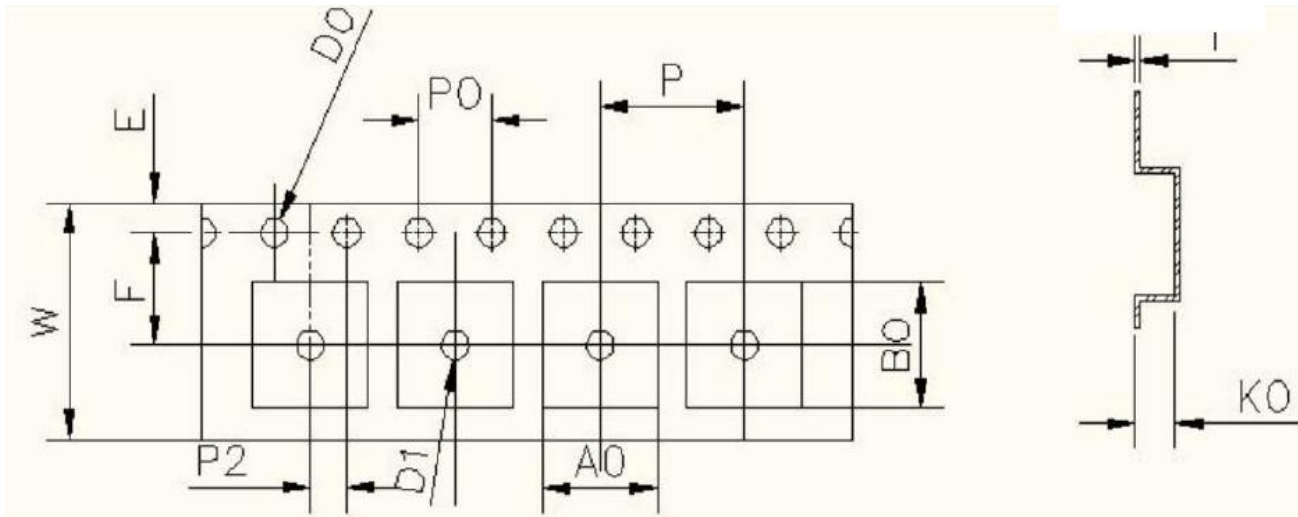
■ Product Dimension

Part Number	Inductance	DCR	I sat	I rms	Mark
	±20%@0A	±30%			
	μH	mΩ	A	A	
SPEB6028-1R0N-XX	1.0 (±30%)	12	6.70	4.60	1R0
SPEB6028-1R2N-XX	1.2 (±30%)	16	6.50	4.30	1R2
SPEB6028-1R5N-XX	1.5 (±30%)	16	6.00	4.30	1R5
SPEB6028-1R8N-XX	1.8 (±30%)	19	5.30	4.10	1R8
SPEB6028-2R2N-XX	2.2 (±30%)	20	5.10	3.75	2R2
SPEB6028-3R3N-XX	3.3 (±30%)	25	3.63	3.40	3R3
SPEB6028-4R7N-XX	4.7 (±30%)	33	3.00	3.00	4R7
SPEB6028-5R6N-XX	5.6 (±30%)	45	2.80	2.45	5R6
SPEB6028-6R8M-XX	6.8	56	2.60	2.40	6R8
SPEB6028-8R2M-XX	8.2	68	2.40	2.25	8R2
SPEB6028-100M-XX	10.0	78	2.05	1.90	100
SPEB6028-120M-XX	12.0	88	1.80	1.70	120
SPEB6028-150M-XX	15.0	125	1.75	1.50	150
SPEB6028-180M-XX	18.0	130	1.55	1.45	180
SPEB6028-220M-XX	22.0	140	1.45	1.40	220
SPEB6028-270M-XX	27.0	180	1.40	1.30	270
SPEB6028-330M-XX	33.0	220	1.35	1.10	330
SPEB6028-390M-XX	39.0	225	1.25	1.10	390
SPEB6028-470M-XX	47.0	280	1.15	1.05	470
SPEB6028-680M-XX	68.0	420	0.95	0.85	680
SPEB6028-820M-XX	82.0	550	0.80	0.70	820
SPEB6028-101M-XX	100.0	670	0.65	0.60	101
SPEB6028-121M-XX	120.0	820	0.62	0.58	121

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C < 75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

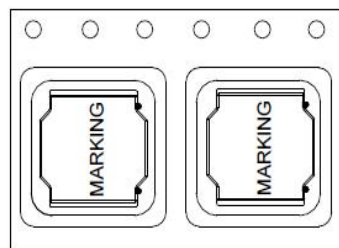
■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	6.4	6.3	3.15	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.35
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.15	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION :

2KPCS/Reel 6KPCS/Inner Box 18KPCS/Outer Box



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

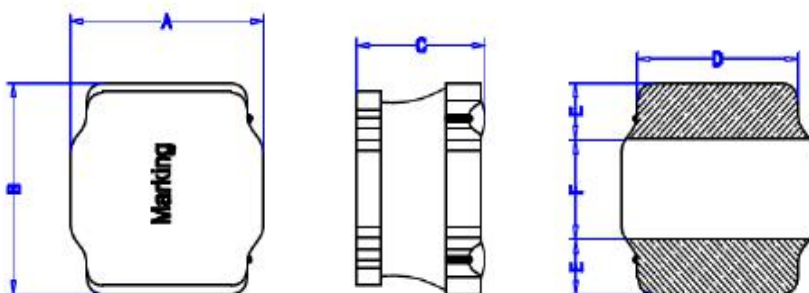
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

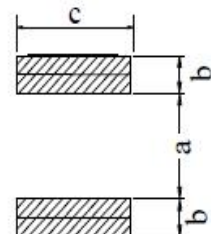
SPEB 6045 - 1R0 N XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB6045	6.0±0.3	6.0±0.3	4.5 Max	4.9Typ	1.55 Typ	2.9 Typ

a	b	c
mm	mm	mm
2.80	1.70	5.70

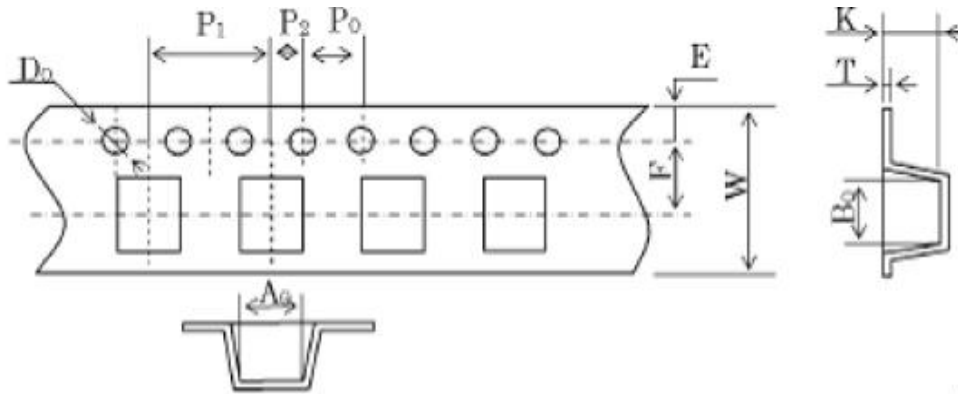
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB6045-R56N-XX	0.56 (±30%)	7.5	14.50	6.20	R56
SPEB6045-1R0N-XX	1.0 (±30%)	10	9.00	5.10	1R0
SPEB6045-1R5N-XX	1.5 (±30%)	12	7.50	4.75	1R5
SPEB6045-1R8N-XX	1.8 (±30%)	13	7.50	4.60	1R8
SPEB6045-2R2N-XX	2.2 (±30%)	13	6.50	4.60	2R2
SPEB6045-3R3N-XX	3.3 (±30%)	20	5.30	3.20	3R3
SPEB6045-3R9N-XX	3.9 (±30%)	20	4.90	3.20	3R9
SPEB6045-4R7N-XX	4.7 (±30%)	24	4.50	3.00	4R7
SPEB6045-5R6N-XX	5.6 (±30%)	31	3.70	2.80	5R6
SPEB6045-6R8M-XX	6.8	33	3.30	2.70	6R8
SPEB6045-8R2M-XX	8.2	45	3.20	2.60	8R2
SPEB6045-100M-XX	10.0	52	3.00	2.50	100
SPEB6045-120M-XX	12.0	58	2.80	2.20	120
SPEB6045-150M-XX	15.0	77	2.50	1.90	150
SPEB6045-220M-XX	22.0	115	2.00	1.50	220
SPEB6045-270M-XX	27.0	120	1.90	1.48	270
SPEB6045-330M-XX	33.0	150	1.60	1.45	330
SPEB6045-390M-XX	39.0	180	1.50	1.25	390
SPEB6045-470M-XX	47.0	220	1.40	1.20	470
SPEB6045-560M-XX	56.0	260	1.30	1.10	560
SPEB6045-680M-XX	68.0	290	1.20	0.90	680
SPEB6045-820M-XX	82.0	355	1.10	0.85	820
SPEB6045-101M-XX	100.0	430	1.00	0.80	101
SPEB6045-121M-XX	120.0	530	0.85	0.75	121
SPEB6045-151M-XX	150.0	760	0.80	0.70	151
SPEB6045-181M-XX	180.0	845	0.75	0.65	181
SPEB6045-221M-XX	220.0	890	0.63	0.55	221

Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (Irms) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (Isat) will cause L0 to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C < 75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)

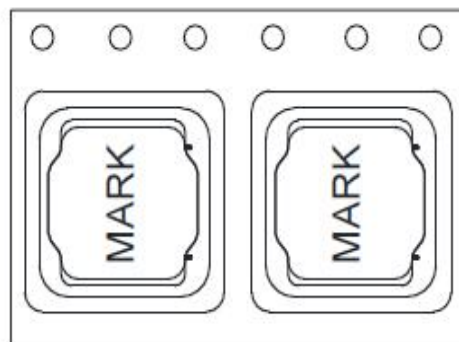


Unit: mm

ITEM	W	A0	B0	K	P1	F	E	D0	P0	P2	T
DIM	12.00	6.3	6.3	4.7	8.00	5.50	1.75	1.50	4.00	2.00	0.40
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION :

1.5KPCS/Reel 4.5KPCS/Inner Box 13.5KPCS/Outer Box



■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

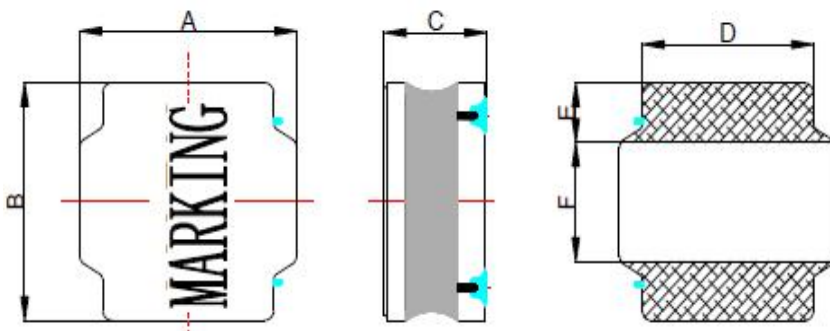
- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

■ Product Identification

SPEB 8040 - 1R0 N XX
 ① ② ③ ④ ⑤

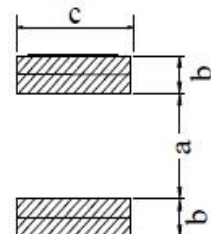
- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEB8040	8.0±0.3	8.0±0.3	4.2 Max	6.3Typ	2.0 Typ	4.0 Typ

Recommend PC Board Pattern



a	b	c
mm	mm	mm
3.80	2.20	7.50

■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		±30%			
	μH	mΩ	A	A	
SPEB8040-R56N-XX	0.56 (±30%)	5	11.50	7.60	R56
SPEB8040-1R0N-XX	1.0 (±30%)	8	9.85	6.30	1R0
SPEB8040-1R5N-XX	1.5 (±30%)	10	8.15	5.65	1R5
SPEB8040-2R2N-XX	2.2 (±30%)	12	7.10	5.15	2R2
SPEB8040-3R3N-XX	3.3 (±30%)	17	6.50	4.40	3R3
SPEB8040-4R7N-XX	4.7 (±30%)	20	5.90	4.00	4R7
SPEB8040-5R6N-XX	5.6 (±30%)	24	5.50	3.80	5R6
SPEB8040-6R8M-XX	6.8	28	4.55	3.60	6R8
SPEB8040-8R2M-XX	8.2	35	4.20	3.40	8R2
SPEB8040-100M-XX	10.0	37	3.60	3.10	100
SPEB8040-120M-XX	12.0	45	3.30	2.80	120
SPEB8040-150M-XX	15.0	56	2.95	2.50	150
SPEB8040-180M-XX	18.0	58	2.70	2.40	180
SPEB8040-220M-XX	22.0	74	2.40	2.00	220
SPEB8040-270M-XX	27.0	80	2.15	1.90	270
SPEB8040-330M-XX	33.0	100	2.05	1.70	330
SPEB8040-470M-XX	47.0	158	1.75	1.50	470
SPEB8040-560M-XX	56.0	160	1.55	1.40	560
SPEB8040-680M-XX	68.0	196	1.45	1.20	680
SPEB8040-820M-XX	82.0	245	1.30	1.10	820
SPEB8040-101M-XX	100.0	295	1.15	1.00	101
SPEB8040-121M-XX	120.0	380	1.10	0.90	121
SPEB8040-151M-XX	150.0	470	1.10	0.80	151
SPEB8040-171M-XX	170.0	538	0.95	0.75	171
SPEB8040-181M-XX	180.0	610	0.90	0.75	181
SPEB8040-221M-XX	220.0	660	0.85	0.70	221
SPEB8040-331M-XX	330.0	970	0.68	0.55	331
SPEB8040-471M-XX	470.0	1400	0.60	0.48	471
SPEB8040-681M-XX	680.0	1750	0.50	0.45	681

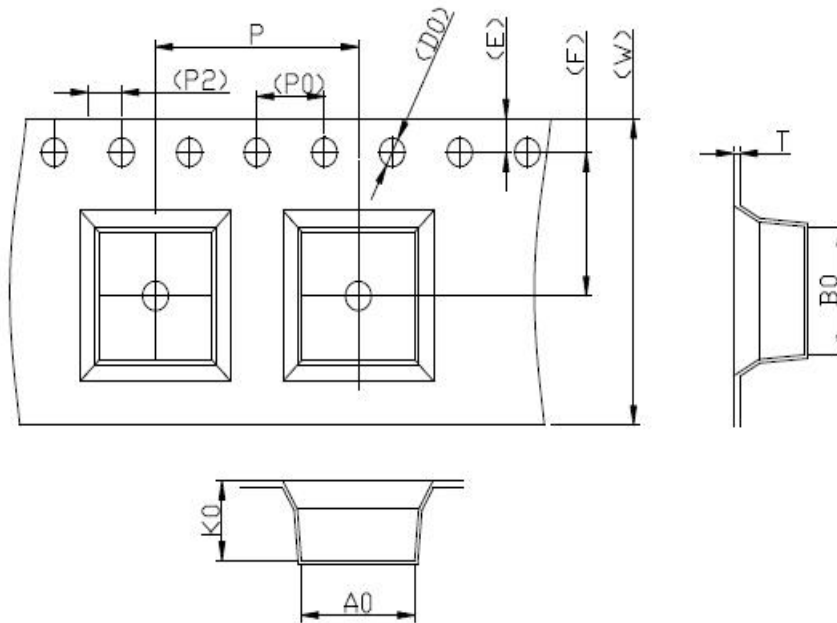
Note:

1. Test frequency : L : 100KHz /0.25V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C < 75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.



All the data listed in this catalogue are for reference only, TOPSUN reserves the right to alter or revise the specifications without prior notification.

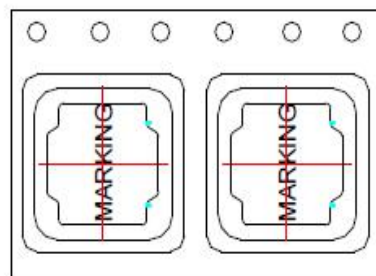
■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	16.00	8.40	8.40	4.2	12.00	7.50	1.75	1.50	1.50	4.00	2.00	0.35
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

PACKAGE SPECIFICATION :

1KPCS/Reel 3KPCS/Inner Box 9KPCS/Outer Box



SMD Power inductor SPEH series
SMD パワーインダクタ SPEH シリーズ
P.89～97

■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

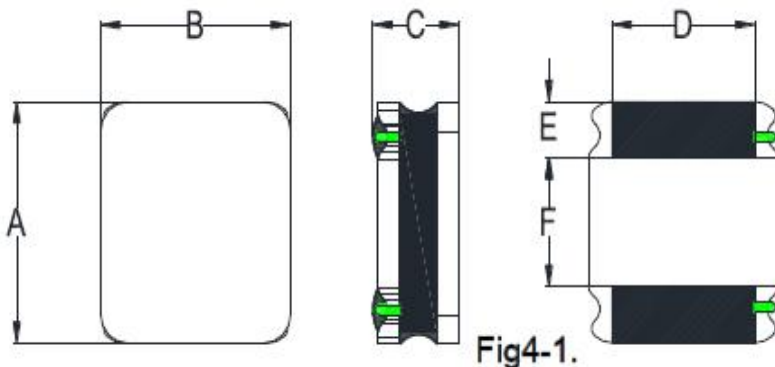
- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

■ Product Identification

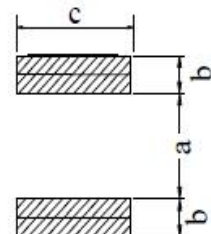
SPEH 2010 - 1R0 M XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEH2010	2.0 ± 0.2	1.6 ± 0.2	1.05 Max	1.2Typ	0.6Typ	0.8 Typ

a	b	c
mm	mm	mm
0.70	0.70	1.60

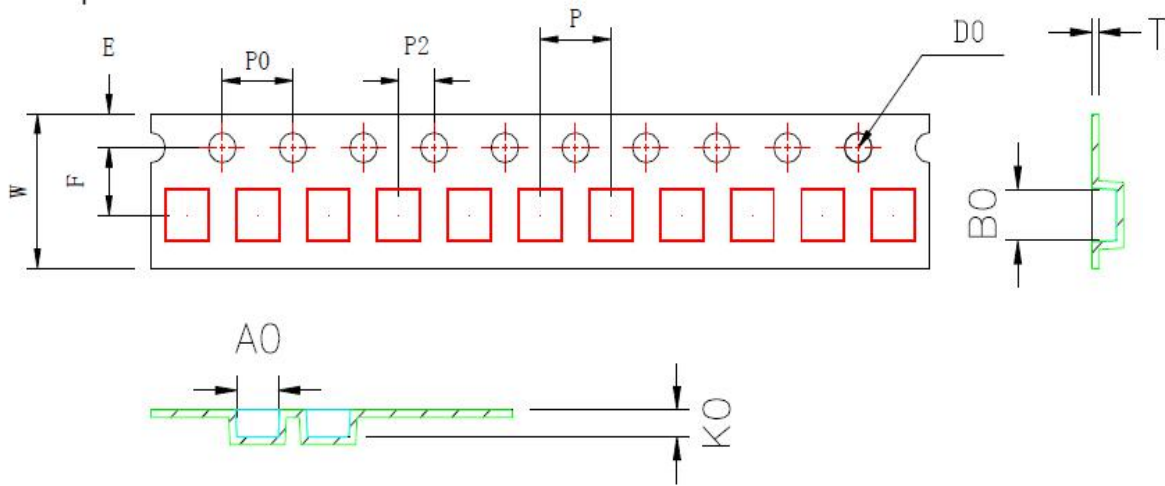
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEH2010-R24M-XX	0.24	40	3.70	2.80	
SPEH2010-R33M-XX	0.33	48	3.00	2.40	
SPEH2010-R47M-XX	0.47	60	2.30	2.30	
SPEH2010-R68M-XX	0.68	76	1.95	2.00	
SPEH2010-1R0M-XX	1.0	114	1.65	1.45	
SPEH2010-1R5M-XX	1.5	174	1.35	1.10	
SPEH2010-2R2M-XX	2.2	265	1.20	1.05	
SPEH2010-3R3M-XX	3.3	345	1.00	0.85	
SPEH2010-4R7M-XX	4.7	480	0.75	0.70	
SPEH2010-6R8M-XX	6.8	800	0.70	0.55	
SPEH2010-8R2M-XX	8.2	940	0.68	0.53	
SPEH2010-100M-XX	10.0	1000	0.65	0.50	
SPEH2010-120M-XX	12.0	1430	0.62	0.36	
SPEH2010-220M-XX	22.0	1700	0.32	0.32	

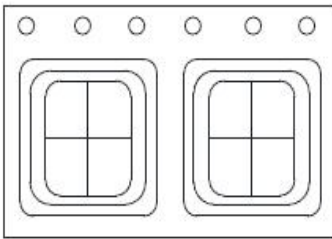
Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	2.00	2.40	1.20	4.00	3.5	1.75	1.50	4.00	2.00	0.25
TOLE	± 0.3	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	+0.1	± 0.1	± 0.1	± 0.05



Packaging Quantity:

2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

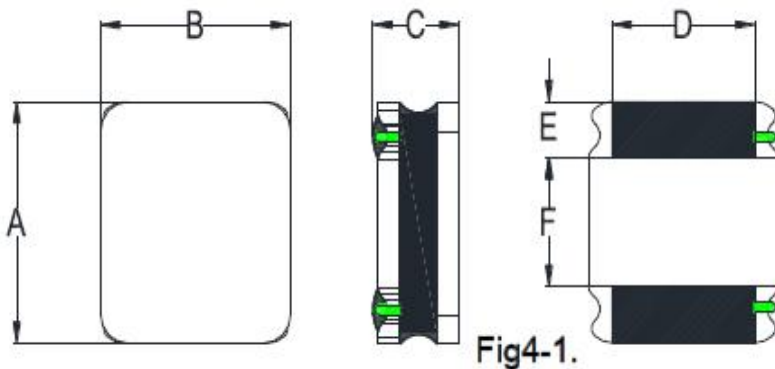
- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

■ Product Identification

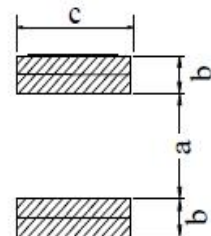
SPEH 2510 - 1R0 M XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEH2510	2.5 ± 0.2	2.0 ± 0.2	1.05 Max	1.5Typ	0.8 Typ	0.8 Typ

a	b	c
mm	mm	mm
0.80	0.85	2.00

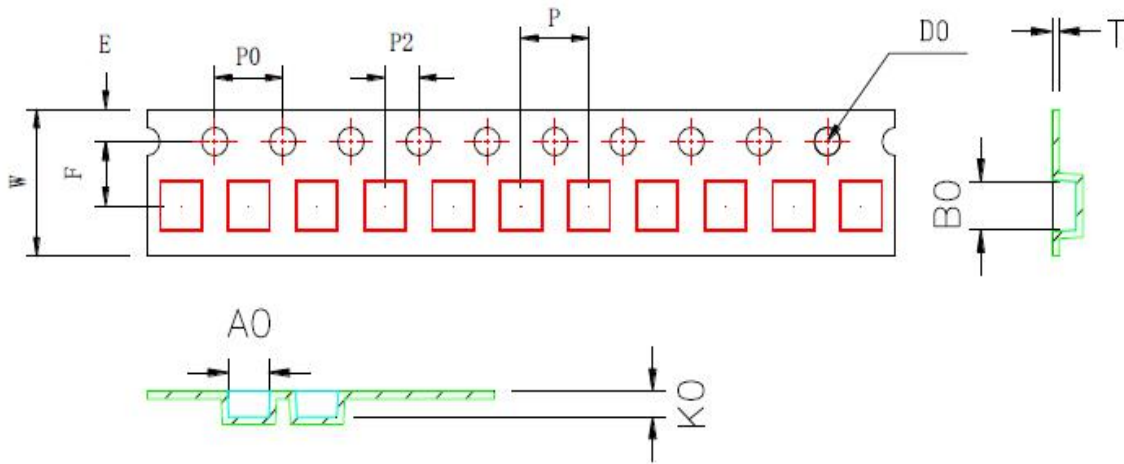
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEH2510-R24M-XX	0.24	34	3.60	2.75	
SPEH2510-R33M-XX	0.33	43	3.60	2.45	
SPEH2510-R47M-XX	0.47	44	2.80	2.40	
SPEH2510-R68M-XX	0.68	62	2.75	2.10	
SPEH2510-1R0M-XX	1.0	80	2.05	1.85	
SPEH2510-1R5M-XX	1.5	108	1.70	1.55	
SPEH2510-2R2M-XX	2.2	150	1.50	1.35	
SPEH2510-3R3M-XX	3.3	228	1.10	1.05	
SPEH2510-4R7M-XX	4.7	330	1.00	0.90	
SPEH2510-5R6M-XX	5.6	480	0.90	0.80	
SPEH2510-6R8M-XX	6.8	480	0.80	0.72	
SPEH2510-8R2M-XX	8.2	572	0.73	0.69	
SPEH2510-100M-XX	10.0	600	0.65	0.67	
SPEH2510-150M-XX	15.0	950	0.50	0.45	

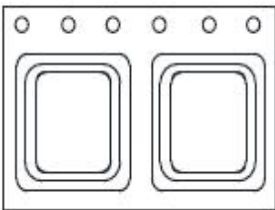
Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	2.35	2.65	1.2	4.00	3.5	1.75	1.50	4.00	2.00	0.25
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05



Packaging Quantity:

2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

■ Features

1. Ferrite material.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Magnetic resin shielding structure reduces noise to ultra-low level.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

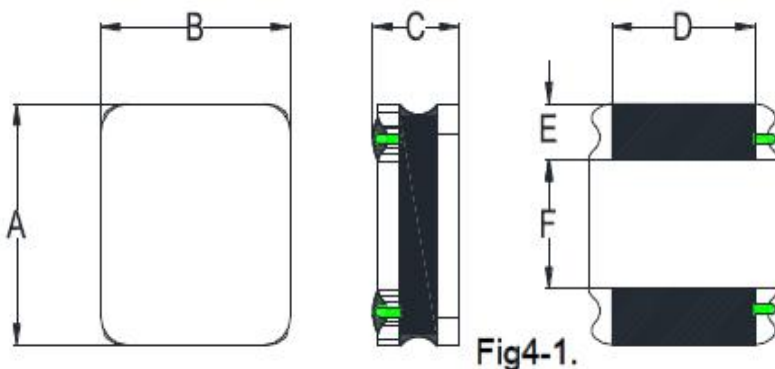
- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

■ Product Identification

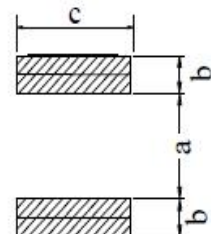
SPEH 2512 - 1R0 M XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEH2512	2.5 ± 0.2	2.0 ± 0.2	1.2 Max	1.5Typ	0.8 Typ	0.8 Typ

a	b	c
mm	mm	mm
0.80	0.85	2.00

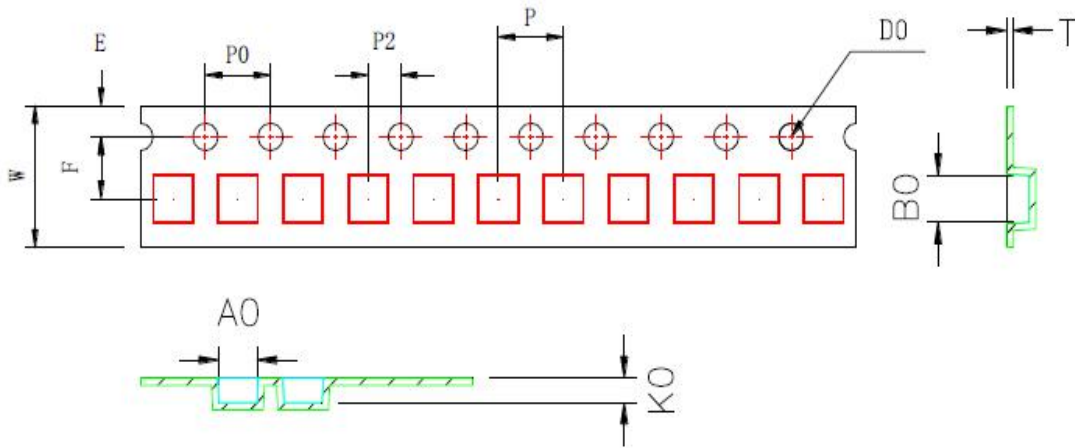
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEH2512-R24M-XX	0.24	23	4.10	4.10	
SPEH2512-R33M-XX	0.33	31	4.00	3.35	
SPEH2512-R47M-XX	0.47	36	3.80	3.00	
SPEH2512-R68M-XX	0.68	47	3.00	2.30	
SPEH2512-1R0M-XX	1.0	60	2.25	2.30	
SPEH2512-1R2M-XX	1.2	78	2.20	2.00	
SPEH2512-1R5M-XX	1.5	90	2.00	1.80	
SPEH2512-1R8M-XX	1.8	108	1.95	1.75	
SPEH2512-2R2M-XX	2.2	108	1.75	1.75	
SPEH2512-2R7M-XX	2.7	156	1.30	1.40	
SPEH2512-3R3M-XX	3.3	156	1.20	1.40	
SPEH2512-4R7M-XX	4.7	228	1.10	1.10	
SPEH2512-5R6M-XX	5.6	330	1.00	1.00	
SPEH2512-6R8M-XX	6.8	360	0.90	0.95	
SPEH2512-100M-XX	10.0	522	0.70	0.78	
SPEH2512-150M-XX	15.0	1000	0.60	0.50	
SPEH2512-220M-XX	22.0	1290	0.45	0.48	

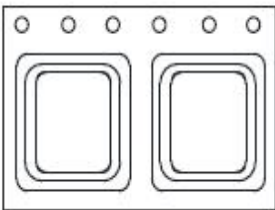
Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	2.35	2.65	1.4	4.00	3.5	1.75	1.50	4.00	2.00	0.25
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05



Packaging Quantity:

2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

SMD Power inductor SPEN series
SMD パワーインダクタ SPEN シリーズ
P.99～122

■ Features

1. Fe base metal material core provides large saturation current.
2. Super low resistance, ultra high current rating.
3. High performance(I sat) realized by metal dust core.
4. Low DCR decreases power loss, small and slim take up less PCB real estate.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

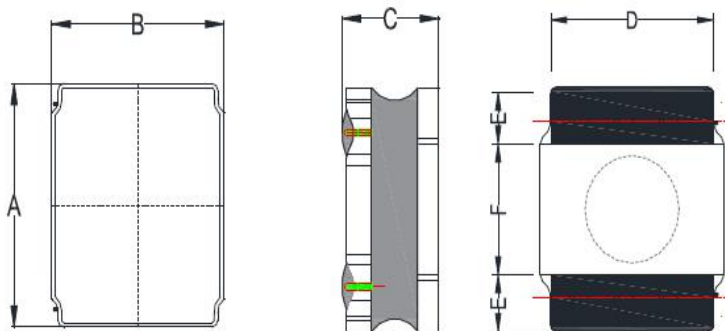
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

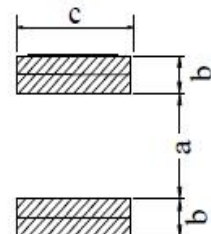
SPEN 2010 - 1R0 M XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEN2010	2.0 ± 0.2	1.6 ± 0.2	1.08 Max	1.6 Typ	0.6 Typ	0.8 Typ

a	b	c
mm	mm	mm
0.80	0.80	1.60

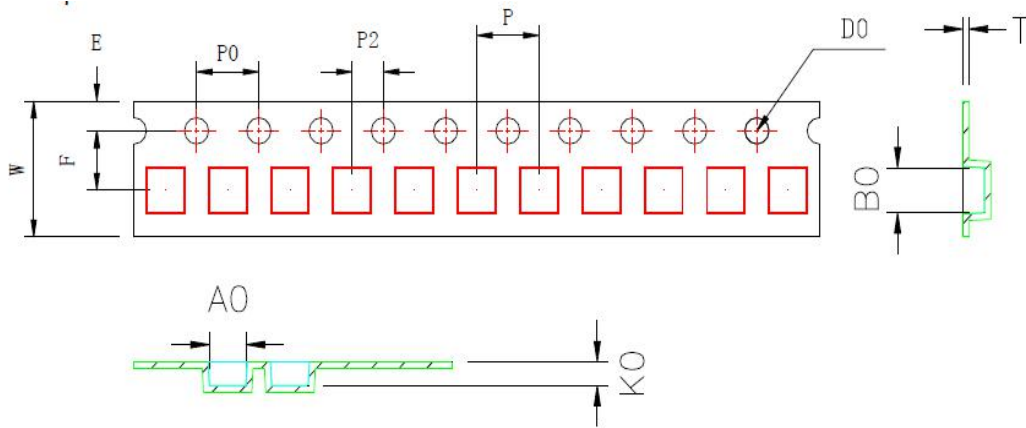
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEN2010-R24M-XX	0.24	40	4.50	3.00	
SPEN2010-R33M-XX	0.33	49	4.40	2.70	
SPEN2010-R47M-XX	0.47	49	4.06	2.70	
SPEN2010-R56M-XX	0.56	53	3.80	2.60	
SPEN2010-R68M-XX	0.68	65	3.50	2.50	
SPEN2010-1R0M-XX	1.0	95	3.30	2.00	
SPEN2010-1R5M-XX	1.5	130	1.95	1.70	
SPEN2010-2R2M-XX	2.2	180	1.90	1.40	
SPEN2010-3R3M-XX	3.3	307	1.40	1.10	
SPEN2010-4R7M-XX	4.7	425	1.10	0.90	
SPEN2010-6R8M-XX	6.8	620	0.95	0.70	
SPEN2010-8R2M-XX	8.2	870	0.86	0.66	
SPEN2010-100M-XX	10.0	875	0.80	0.60	

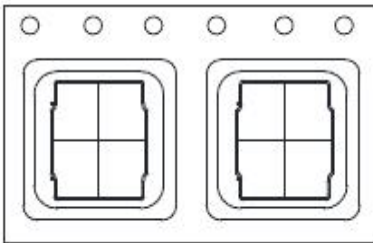
Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	2.00	2.40	1.20	4.00	3.5	1.75	1.50	4.00	2.00	0.25
TOLE	± 0.3	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	± 0.1	+0.1	± 0.1	± 0.1	± 0.05



Packaging Quantity:

2KPCS/ Reel

20KPCS/ Inner Box

80KPCS/ Outer Box

■ Features

1. Fe base metal material core provides large saturation current.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Low DCR decreases power loss, small and slim take up less PCB real estate.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

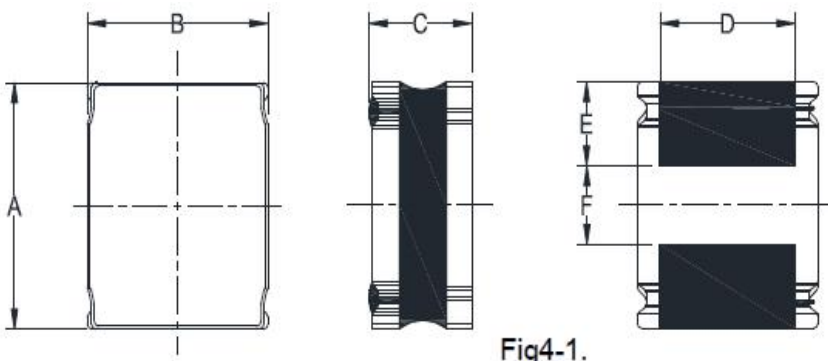
- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

■ Product Identification

SPEN 2510 - 1R0 M XX
 ① ② ③ ④ ⑤

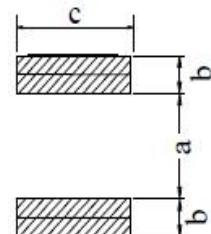
- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEN2510	2.5 ± 0.2	2.0 ± 0.2	1.05 Max	1.5Typ	0.8 Typ	0.8 Typ

Recommend PC Board Pattern



a	b	c
mm	mm	mm
0.80	0.85	2.00

■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEN2510-R24M-XX	0.24	33	6.10	3.70	
SPEN2510-R33M-XX	0.33	39	4.80	3.50	
SPEN2510-R47M-XX	0.47	45	4.40	3.20	
SPEN2510-R68M-XX	0.68	59	3.20	2.75	
SPEN2510-1R0M-XX	1.0	85	3.10	2.20	
SPEN2510-1R5M-XX	1.5	106	2.60	2.00	
SPEN2510-2R2M-XX	2.2	155	1.90	1.50	
SPEN2510-3R3M-XX	3.3	235	1.60	1.20	
SPEN2510-4R7M-XX	4.7	290	1.30	1.00	
SPEN2510-6R8M-XX	6.8	480	1.00	0.95	
SPEN2510-100M-XX	10.0	740	0.90	0.65	

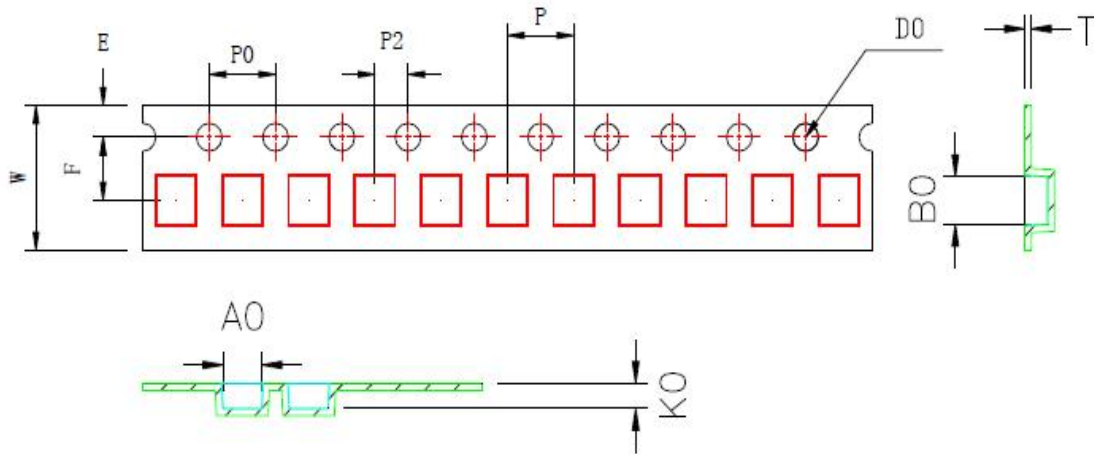
Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

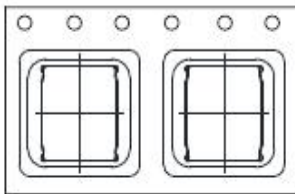


All the data listed in this catalogue are for reference only, TOPSUN reserves the right to alter or revise the specifications without prior notification.

■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	2.35	2.65	1.2	4.00	3.5	1.75	1.50	4.00	2.00	0.25
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05



Packaging Quantity:

2KPCS/ Reel

20KPCS/ Inner Box

80KPCS/ Outer Box

■ Features

1. Fe base metal material core provides large saturation current.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Low DCR decreases power loss, small and slim take up less PCB real estate.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

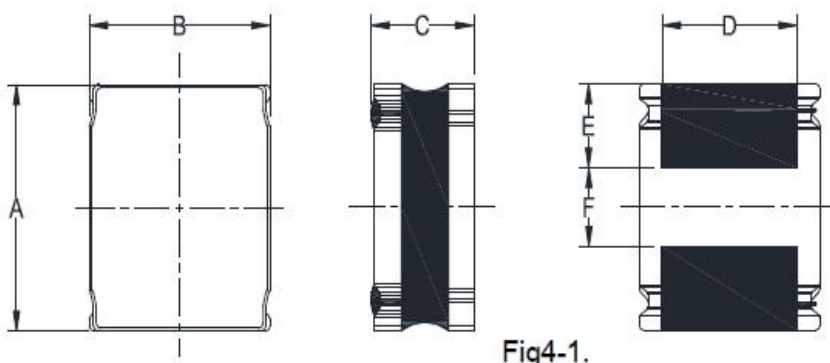
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

SPEN 2512 - 1R0 M XX
 ① ② ③ ④ ⑤

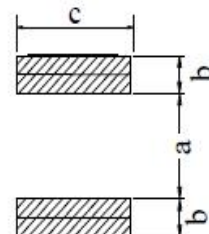
- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEN2512	2.5 ± 0.2	2.0 ± 0.2	1.26 Max	1.5Typ	0.8 Typ	0.8 Typ

Recommend PC Board Pattern



a	b	c
mm	mm	mm
0.80	0.85	2.00

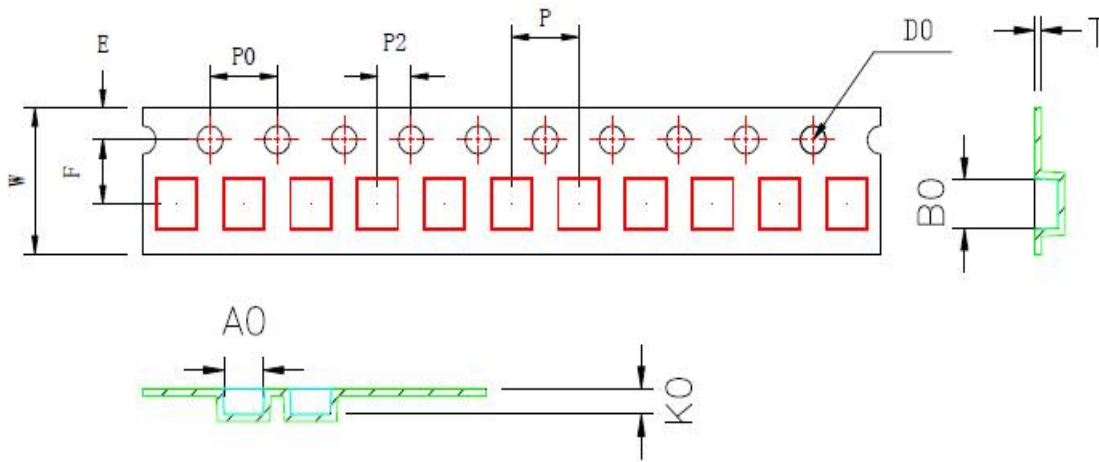
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEN2512-R24M-XX	0.24	23	6.50	7.80	
SPEN2512-R33M-XX	0.33	28	5.35	6.30	
SPEN2512-R47M-XX	0.47	35	4.90	5.60	
SPEN2512-R68M-XX	0.68	45	3.80	4.50	
SPEN2512-1R0M-XX	1.0	54	3.60	4.20	
SPEN2512-1R5M-XX	1.5	78	2.90	3.50	
SPEN2512-2R2M-XX	2.2	120	2.60	3.00	
SPEN2512-3R3M-XX	3.3	215	1.70	2.10	
SPEN2512-4R7M-XX	4.7	260	1.60	1.90	
SPEN2512-6R8M-XX	6.8	366	1.20	1.40	
SPEN2512-100M-XX	10.0	480	1.10	1.35	

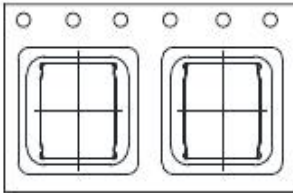
Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8,00	2,35	2,65	1,4	4,00	3,5	1,75	1,50	4,00	2,00	0,25
TOLE	$\pm 0,3$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	+0,1	$\pm 0,1$	$\pm 0,1$	$\pm 0,05$



Packaging Quantity:

2KPCS/ Reel

20KPCS/ Inner Box

80KPCS/ Outer Box

■ Features

1. Fe base metal material core provides large saturation current.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Low DCR decreases power loss, small and slim take up less PCB real estate.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

- 1.Low profile,high current power supplies.
- 2.DC/DC converters in distributed power systems.
- 3.Battery powered devices.

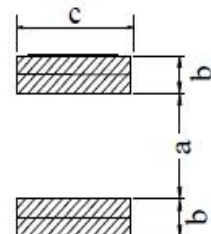
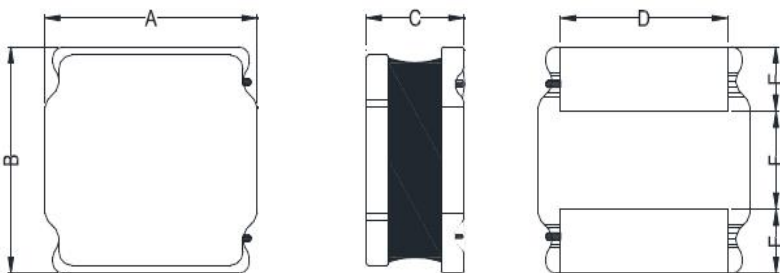
■ Product Identification

SPEN 3012 - 1R0 M XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension

Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEN3012	3.0 ± 0.2	3.0 ± 0.2	1.2 Max	2.5Typ	0.75 Typ	1.5 Typ

a	b	c
mm	mm	mm
1.50	0.80	2.70



All the data listed in this catalogue are for reference only, TOPSUN reserves the right to alter or revise the specifications without prior notification.

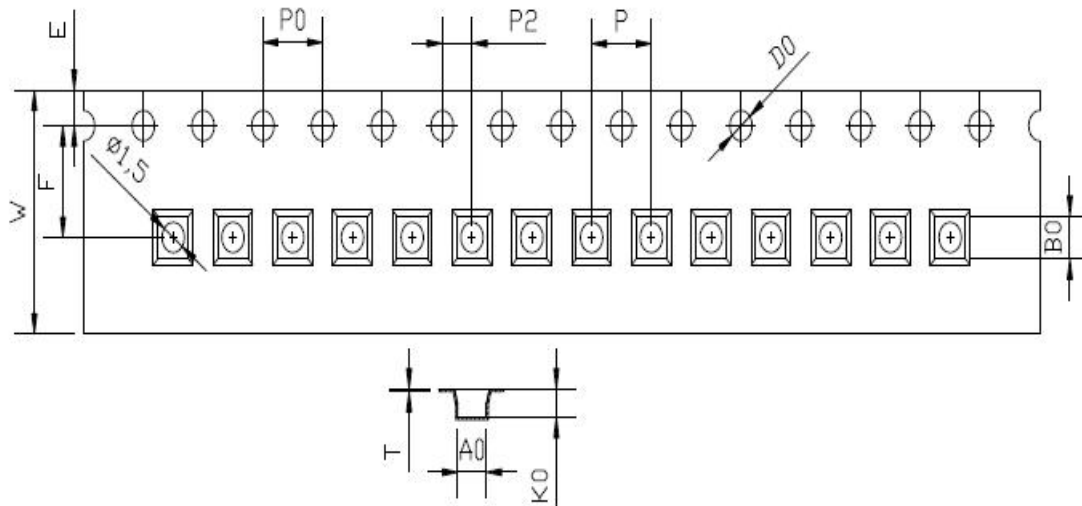
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEN3012-R33M-XX	0.33	32	7.20	4.10	
SPEN3012-R47M-XX	0.47	40	6.80	3.80	
SPEN3012-R68M-XX	0.68	46	5.80	3.10	
SPEN3012-1R0M-XX	1.0	54	4.20	2.70	
SPEN3012-1R5M-XX	1.5	74	3.40	2.50	
SPEN3012-2R2M-XX	2.2	108	2.80	2.05	
SPEN3012-3R3M-XX	3.3	185	2.20	1.50	
SPEN3012-4R7M-XX	4.7	255	2.00	1.15	
SPEN3012-6R8M-XX	6.8	340	1.60	1.10	
SPEN3012-100M-XX	10.0	474	1.20	1.00	

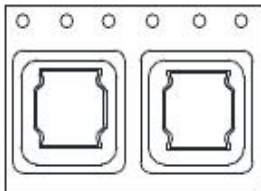
Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	3.3	3.3	1.6	4.00	3.50	1.75	1.50	4.00	2.00	0.25
TOLE	±0.1	±0.05	±0.05	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05



Packaging Quantity:

2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

■ Features

1. Fe base metal material core provides large saturation current.
2. Super low resistance, ultra high current rating.
3. High performance(I sat) realized by metal dust core.
4. Low DCR decreases power loss, small and slim take up less PCB real estate.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

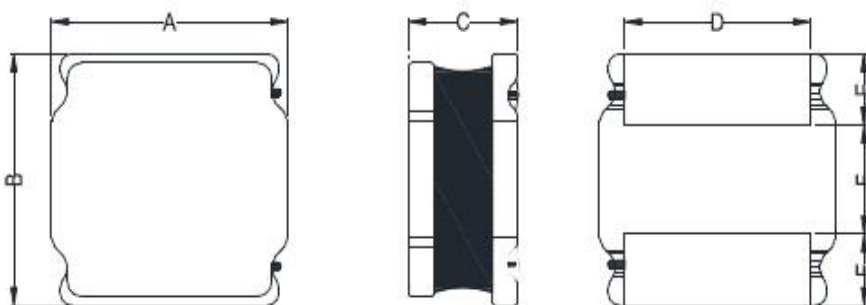
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

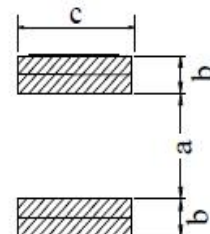
SPEN 3015 - 1R0 M XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEN3015	3.0 ± 0.2	3.0 ± 0.2	1.55 Max	2.5 Typ	0.8 Typ	1.4 Typ

a	b	c
mm	mm	mm
1.50	0.80	2.70

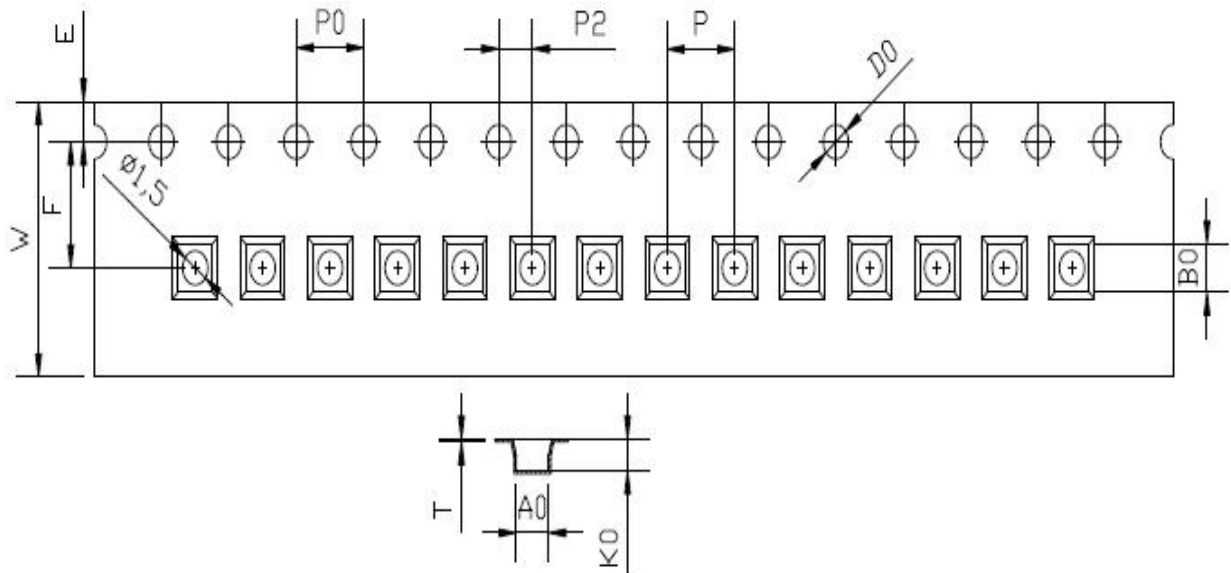
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEN3015-R22M-XX	0.22	19	8.80	5.20	
SPEN3015-R33M-XX	0.33	21	8.00	5.00	
SPEN3015-R47M-XX	0.47	26	7.60	4.60	
SPEN3015-R68M-XX	0.68	36.5	7.00	4.00	
SPEN3015-1R0M-XX	1.0	48	5.80	3.50	
SPEN3015-1R5M-XX	1.5	72	4.60	2.20	
SPEN3015-2R2M-XX	2.2	95	3.70	2.20	
SPEN3015-3R3M-XX	3.3	150	3.40	2.00	
SPEN3015-4R7M-XX	4.7	185	2.50	1.70	
SPEN3015-6R8M-XX	6.8	320	2.00	1.20	
SPEN3015-100M-XX	10.0	450	1.60	1.10	

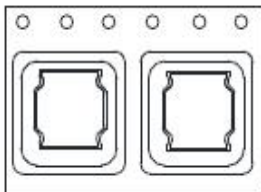
Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)



TEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	8.00	3.3	3.3	1.9	4.00	3.50	1.75	1.50	4.00	2.00	0.25
TOLE	±0.3	±0.05	±0.05	±0.05	±0.1	±0.05	±0.1	+0.1	±0.1	±0.05	±0.05



Packaging Quantity:

2KPCS/ Reel 20KPCS/ Inner Box 80KPCS/ Outer Box

■ Features

1. Fe base metal material core provides large saturation current.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Low DCR decreases power loss, small and slim take up less PCB real estate.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

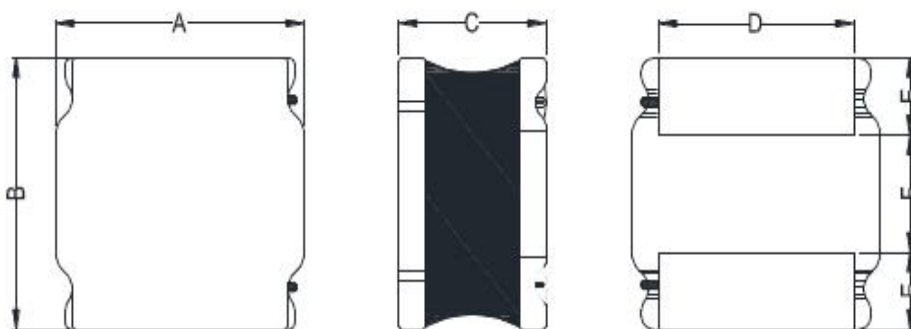
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

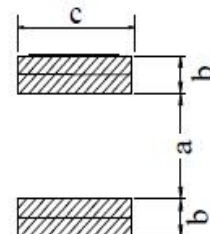
SPEN 3020 - 1R0 M XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEN3020	3.0 ± 0.2	3.0 ± 0.2	2.2 Max	2.5Typ	0.75 Typ	1.5Typ

a	b	c
mm	mm	mm
1.50	0.80	2.70

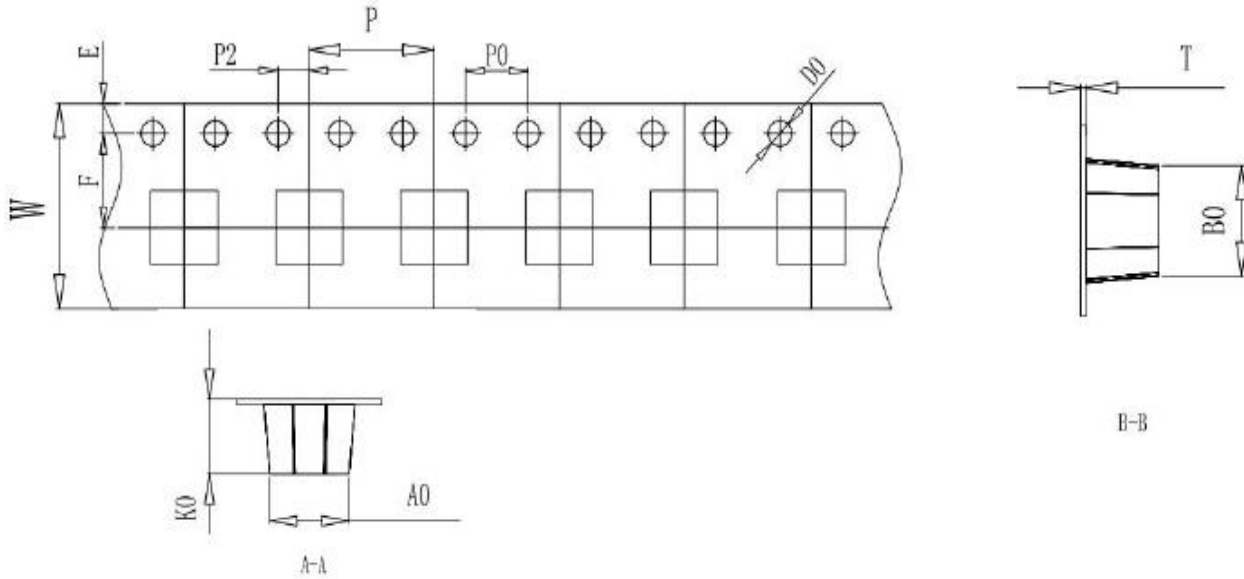
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEN3020-R24M-XX	0.24	20	12.50	6.00	
SPEN3020-R47M-XX	0.47	24	11.00	5.80	
SPEN3020-1R0M-XX	1.00	45	8.00	4.50	
SPEN3020-3R3M-XX	3.30	124	4.60	2.50	

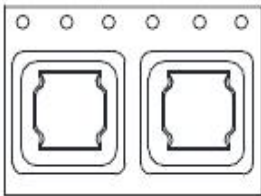
Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	P0	P2	T
DIM	12.00	3.3	3.3	2.50	8.00	5.50	1.75	1.50	4.00	2.00	0.3
TOLE	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	±0.1	±0.1	±0.05



Packaging Quantity:

3KPCS/ Reel 9KPCS/ Inner Box 27KPCS/ Outer Box

■ Features

1. Fe base metal material core provides large saturation current.
2. Super low resistance, ultra high current rating.
3. High performance(I sat)realized by metal dust core.
4. Low DCR decreases power loss, small and slim take up less PCB real estate.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

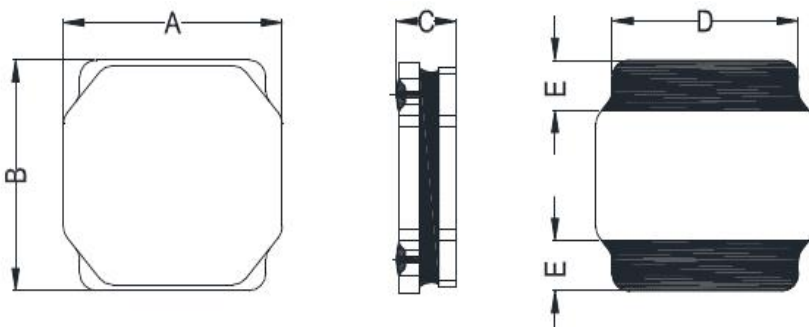
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

SPEN 4012 - 1R0 M XX
 ① ② ③ ④ ⑤

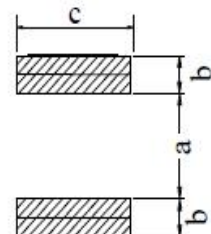
- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Series	A	B	C	D	E
	mm	mm	mm	mm	mm
SPEN4012	4.0 ± 0.2	4.0 ± 0.2	1.2 Max	3.3Typ	1.2 Typ

Recommend PC Board Pattern



a	b	c
mm	mm	mm
1.60	1.30	3.70

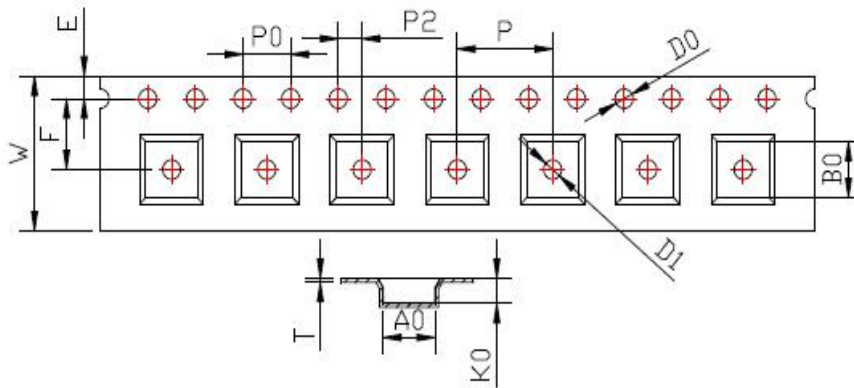
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEN4012-R56M-XX	0.56	50	6.00	3.20	
SPEN4012-R68M-XX	0.68	55	5.20	3.25	
SPEN4012-1R0M-XX	1.0	59	3.80	3.00	
SPEN4012-2R2M-XX	2.2	90	2.80	2.50	
SPEN4012-3R3M-XX	3.3	130	2.80	2.00	
SPEN4012-4R7M-XX	4.7	175	2.30	1.80	
SPEN4012-6R8M-XX	6.8	230	1.60	1.50	
SPEN4012-8R2M-XX	8.2	273	1.58	1.46	
SPEN4012-100M-XX	10.0	360	1.55	0.85	

Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	4.3	4.3	2.25	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05

Packaging Quantity:

4.5KPCS/ Reel 13.5KPCS/ Inner Box 40.5KPCS/ Outer Box

■ Features

1. Fe base metal material core provides large saturation current.
2. Super low resistance, ultra high current rating.
3. High performance(I sat) realized by metal dust core.
4. Low DCR decreases power loss, small and slim take up less PCB real estate.
5. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
6. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).



■ Applications

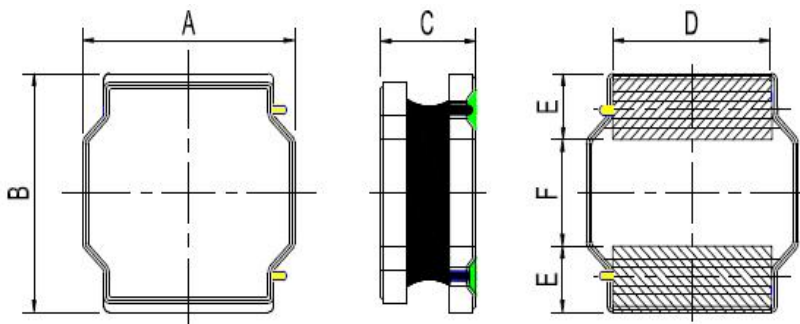
1. Low profile, high current power supplies.
2. DC/DC converters in distributed power systems.
3. Battery powered devices.

■ Product Identification

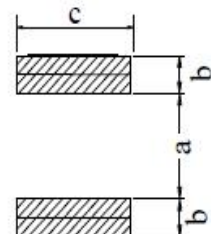
SPEN 4020 - 1R0 M XX
 ① ② ③ ④ ⑤

- ①: Series
- ②: Dimensions
- ③: Inductance 1R0=1.0uH
- ④: Inductance Tolerance M=±20% N=±30%
- ⑤: Lead-free or Halogen-free

■ Product Dimension



Recommend PC Board Pattern



Series	A	B	C	D	E	F
	mm	mm	mm	mm	mm	mm
SPEN4020	4.0 ± 0.2	4.0 ± 0.2	2.0 Max	3.3Typ	1.0 Typ	2.0 Typ

a	b	c
mm	mm	mm
1.90	1.10	3.70



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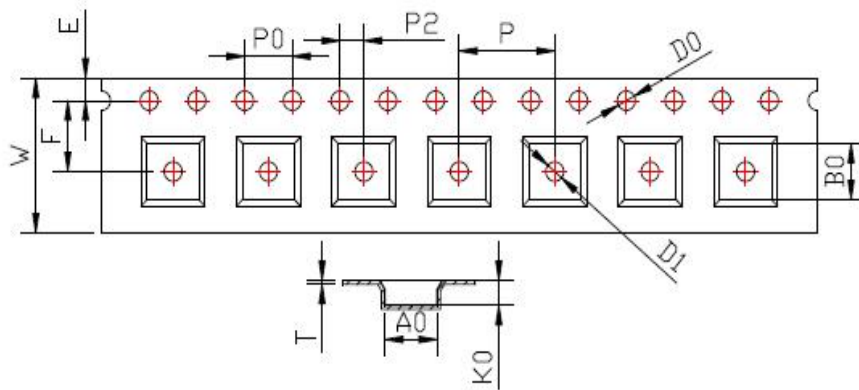
■ Product Dimension

Part Number	Inductance ±20%@0A	DCR	I sat	I rms	Mark
		Max			
	μH	mΩ	A	A	
SPEN4020-R24M-XX	0.24	17	14.00	6.00	
SPEN4020-R33M-XX	0.33	20	13.00	5.90	
SPEN4020-R47M-XX	0.47	22	11.00	5.90	
SPEN4020-R68M-XX	0.68	24.5	9.00	5.80	
SPEN4020-1R0M-XX	1.0	28	8.70	5.80	
SPEN4020-1R5M-XX	1.5	38	7.70	5.20	
SPEN4020-2R2M-XX	2.2	56	6.00	4.00	
SPEN4020-3R3M-XX	3.3	88	4.70	3.40	
SPEN4020-4R7M-XX	4.7	115	4.00	2.85	
SPEN4020-6R8M-XX	6.8	160	3.00	2.40	
SPEN4020-8R2M-XX	8.2	220	2.90	2.10	
SPEN4020-100M-XX	10.0	220	2.80	2.00	
SPEN4020-150M-XX	15.0	400	2.10	1.00	
SPEN4020-220M-XX	22.0	545	1.30	0.95	

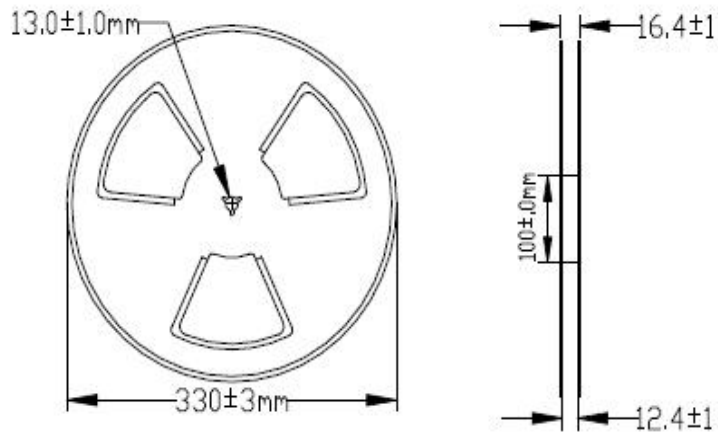
Note:

1. Test frequency : L : 1MHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (I_{sat}) will cause L₀ to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -40°C ~ 85°C <75%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

■ Packaging (mm)



ITEM	W	A0	B0	K0	P	F	E	D0	D1	P0	P2	T
DIM	12.00	4.3	4.3	2.25	8.00	5.50	1.75	1.50	1.50	4.00	2.00	0.30
TOLE	+0.30 -0.10	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	+0.1	+0.1	±0.1	±0.1	±0.05



Packaging Quantity:

3.0KPCS/ Reel 9.0KPCS/ Inner Box 27KPCS/ Outer Box

**SMD Ultra high current power inductor
STP series**

**SMD 超大電流 パワーインダクタ
STP シリーズ**

P.124～130

Ultra High Current Power Inductor STP Ferrite Cores TYPE

■ Features

1. Surface mount inductors designed for high speed, high current switch mode applications requiring lower inductance.
2. Gapped ferrite cores for maximum efficiency
Customized specifications are available.
3. Voltage regulator modules (VRMs) for servers, microprocessors.
4. High frequency, high current switching power supplies.
5. RoHS, Halogen Free Compliance .



■ Product Identification

STP XXXXXX - XXX X XX
① ② ③ ④ ⑤

- ①: Product Symbol
- ②: Dimensions
- ③: Inductance
- ④: Inductance Tolerance
- ⑤: Serial Number

■ Product Picture

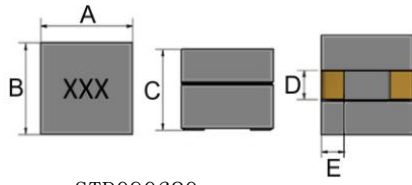


Customers' designs and requirements are welcome.

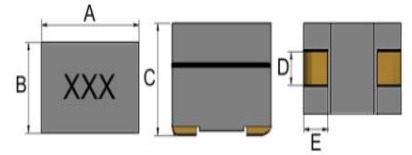
More specifications and performance, please consult to our business!

■ Product Dimension

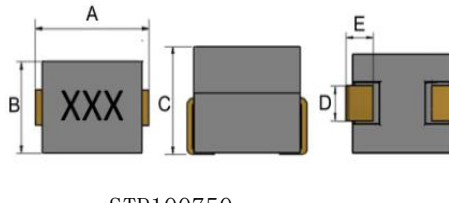
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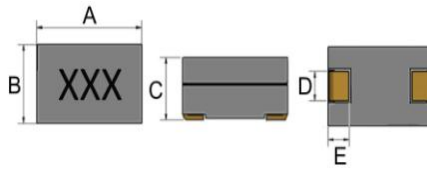
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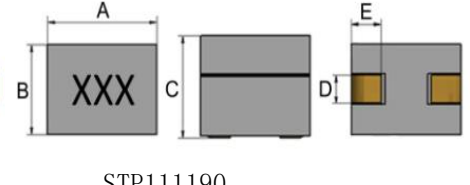
STP050566/060680



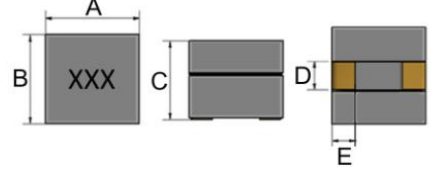
STP100750



STP070750/100865/100868
/100874/110778



STP111190



SERIES	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
STP040440	3.8±0.3	3.8±0.3	3.8±0.3	1.4±0.3	1.2±0.3
STP050540	5.0±0.3	5.4±0.3	4.3±0.3	2.0±0.5	1.5±0.3
STP050545	4.5±0.3	4.5 MAX	4.5±0.3	1.5±0.3	1.2±0.3
STP050565	5.2MAX	5.2MAX	6.5MAX	2.0±0.3	1.4±0.3
STP050566	5.2MAX	5.0MAX	6.6MAX	2.0±0.3	1.2±0.3
STP060680	7.0±0.5	5.7±0.5	7.5±0.5	3.0±0.3	1.7±0.3
STP070750	7.0MAX	7.0MAX	5.0MAX	2.5±0.3	1.5±0.3
STP090680	9.4±0.3	6.2±0.3	8.0MAX	2.2±0.3	2.3±0.3
STP100750	10.2MAX	7.0MAX	5.0MAX	2.5±0.3	1.5±0.3
STP100865	10.5MAX	8.0MAX	6.5MAX	2.25±0.3	2.55±0.3
STP100868	10.2±0.3	7.8±0.3	6.8±0.3	2.25±0.3	2.55±0.3
STP100874	10.3±0.3	7.65±0.3	7.5MAX	2.2±0.3	2.55±0.3
STP110778	11.0MAX	7.2MAX	7.8MAX	1.55±0.3	2.55±0.3
STP111190	11.2MAX	11.2MAX	9.0MAX	2.0±0.3	2.5±0.3



All the data listed in this catalogue are for reference only, Topsun reserves the right to alter or revise the specifications without prior notification.

■ ELECTRICAL CHARACTERISTICS

Part Number	L (μ H)	DCR (m Ω)	I sat(A)	I rms(A)
STP040440-22NX-HF	0.022 \pm 20%,30%	0.23 \pm 10%	60	28
STP040440-65NX-HF	0.065 \pm 20%,30%	0.32 \pm 25%	30	19
STP040440-R10X-HF	0.10 \pm 20%,30%	0.32 \pm 25%	16	40
STP050540-55NX-HF	0.055 \pm 20%,30%	0.2 \pm 10%	50 \geq 35nH	30
STP050545-R10X-HF	0.10 \pm 20%,30%	0.3 \pm 10%	16	40
STP050565-80NX-HF	0.08 \pm 20%,30%	0.2 \pm 10%	50	50
STP050566-50NX-HF	0.05 \pm 20%,30%	0.47 \pm 20%	70	40
STP050566-50NX-HF1	0.05 \pm 20%,30%	0.27 \pm 10%	72	53
STP050566-R10X-HF	0.10 \pm 20%,30%	0.47 \pm 20%	35	40
STP050566-R11X-HF	0.11 \pm 20%,30%	0.27 \pm 10%	31	53
STP060680-32NX-HF	0.032 \pm 15%,20%,30%	0.23 \pm 10%	125	50
STP060680-R10X-HF	0.10 \pm 15%,20%,30%	0.23 \pm 10%	40	35
STP060680-R20X-HF	0.20 \pm 15%,20%,30%	0.23 \pm 10%	22	35
STP070750-72NX-HF	0.072 \pm 15%,20%,30%	0.32 \pm 10%	58	31
STP070750-R10X-HF	0.10 \pm 15%,20%,30%	0.32 \pm 10%	46	31
STP070750-R11X-HF	0.11 \pm 20%,30%	0.32 \pm 10%	46	31
STP070750-R12X-HF	0.12 \pm 15%,20%,30%	0.32 \pm 10%	38	31
STP070750-R15X-HF	0.15 \pm 15%,20%,30%	0.32 \pm 10%	30	31
STP070750-R18X-HF	0.18 \pm 15%,20%,30%	0.32 \pm 10%	25	31
STP070750-R22X-HF	0.22 \pm 15%,20%,30%	0.32 \pm 10%	20	31
STP090680-R10X-HF	0.10 \pm 10%,15%,20%	0.29 \pm 10%	95	51
STP090680-R12X-HF	0.12 \pm 10%,15%,20%	0.29 \pm 10%	80	51
STP090680-R15X-HF	0.15 \pm 10%,15%,20%	0.29 \pm 10%	65	51
STP090680-R18X-HF	0.18 \pm 10%,15%,20%	0.29 \pm 10%	54	51
STP090680-R22X-HF	0.22 \pm 10%,15%,20%	0.29 \pm 10%	44	51
STP090680-R28X-HF	0.28 \pm 10%,15%,20%	0.29 \pm 10%	34	51
STP090680-R30X-HF	0.30 \pm 110%,15%,20%	0.29 \pm 10%	32.5	51
STP100750-85NX-HF	0.085 \pm 20%,20%	0.39 \pm 10%	>70	31
STP100750-R10X-HF	0.10 \pm 15%,20%	0.39 \pm 10%	70	31
STP100750-R12X-HF	0.12 \pm 15%,20%	0.39 \pm 10%	52	31
STP100750-R15X-HF	0.15 \pm 15%,20%	0.39 \pm 10%	40	31
STP100750-R16X-HF	0.155 \pm 15%,20%	0.39 \pm 10%	40	31
STP100750-R20X-HF	0.20 \pm 15%,20%	0.39 \pm 10%	33	31
STP100750-R22X-HF	0.22 \pm 15%,20%	0.39 \pm 10%	33	25
STP100865-R12X-HF	0.12 \pm 15%,20%	0.48 \pm 10%	74	40
STP100865-R14X-HF	0.14 \pm 15%,20%	0.48 \pm 10%	66	40
STP100865-R18X-HF	0.18 \pm 15%,20%	0.48 \pm 10%	52	40
STP100865-R22X-HF	0.215 \pm 15%,20%	0.48 \pm 10%	50	40
STP100865-R30X-HF	0.30 \pm 15%,20%	0.48 \pm 10%	30	40
STP100865-R60X-HF	0.60 \pm 15%,20%	0.48 \pm 10%	12	40
STP100868-R12X-HF	0.12 \pm 10%,15%,20%	0.29 \pm 10%	80	54
STP100868-R14X-HF	0.15 \pm 10%,15%,20%	0.29 \pm 10%	72	54

STP100868-R17X-HF	0.17±10%,15%,20%	0.29±10%	58	54
STP100868-R18X-HF	0.18±10%,15%,20%	0.29±10%	56	54
STP100868-R22X-HF	0.22±10%,15%,20%	0.29±10%	50	54
STP100868-R30X-HF	0.30±10%,15%,20%	0.29±10%	32	54
STP100874-R12X-HF	0.12±15%,20%	0.29±10%	94	41
STP100874-R13X-HF	0.13±15%,20%	0.29±10%	85	41
STP100874-R15X-HF	0.15±15%,20%	0.29±10%	72	41
STP100874-R17X-HF	0.17±15%,20%	0.29±10%	62	41
STP100874-R18X-HF	0.18±15%,20%	0.29±10%	62	41
STP100874-R22X-HF	0.22±15%,20%	0.29±10%	48	41
STP100874-R23X-HF	0.23±15%,20%	0.29±10%	43	41
STP100874-R27X-HF	0.27±15%,20%	0.29±10%	37	41
STP100874-R30X-HF	0.30±15%,20%	0.29±10%	32	41
STP100878-70NX-HF	0.07±15%,20%	0.29±10%	>70	48
STP100878-R10X-HF	0.10±15%,20%	0.29±10%	>70	48
STP100878-R12X-HF	0.12±15%,20%	0.29±10%	>70	48
STP100878-R15X-HF	0.15±15%,20%	0.29±10%	70	48
STP100878-R18X-HF	0.18±15%,20%	0.29±10%	55	48
STP100878-R22X-HF	0.22±15%,20%	0.29±10%	47	48
STP100878-R23X-HF	0.23±15%,20%	0.29±10%	44	48
STP100878-R30X-HF	0.30±15%,20%	0.29±10%	47	48
STP100878-R40X-HF	0.40±15%,20%	0.29±10%	44	48
STP100878-R47X-HF	0.47±15%,20%	0.29±10%	32	48
STP100878-R50X-HF	0.50±15%,20%	0.29±10%	17	48
STP100878-R51X-HF	0.51±15%,20%	0.29±10%	17	48
STP111190-R22X-HF	0.225±15%,20%,30%	0.63±10%	68	35
STP111190-R25X-HF	0.25±15%,20%,30%	0.63±10%	63	35
STP111190-R27X-HF	0.27±15%,20%,30%	0.63±10%	50	35
STP111190-R32X-HF	0.325±15%,20%,30%	0.63±10%	43	35
STP111190-R47X-HF	0.47±15%,20%,30%	0.63±10%	30	35

The above is part of the conventional product specifications, special specifications can also be customized, more specifications and performance, please consult to our business!

■ Note:

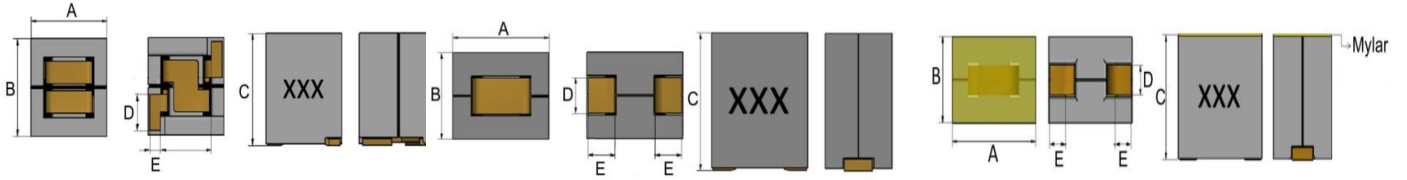
1. Test frequency : L 100KHz/1V .
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (Irms) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (Isat) will cause L0 to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C .
6. Storage temperature and Humidity range -25°C ~ 45°C <70%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.
9. Rated DC Current: The less value which is Isat or Irms

■ Product Dimension

STP070795/070796

STP080812/110812/100612

STP100690/100710/110812E

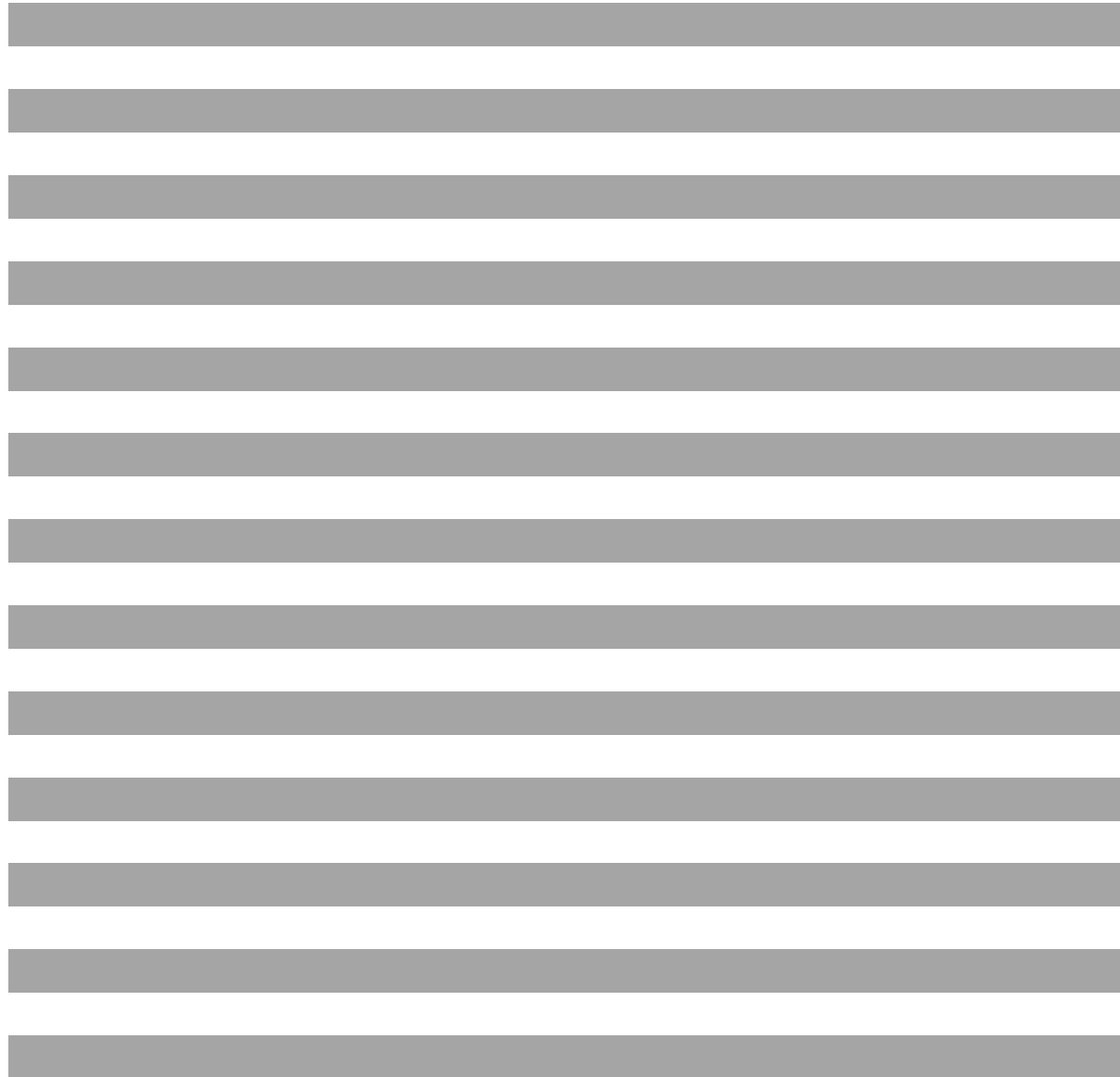


SERIES	A(mm)	B(mm)	C(mm)	D(mm)	E(mm)
STP070795	6.5MAX	6.6MAX	9.5MAX	2.1±0.3	1.0±0.3
STP070796	6.5MAX	6.6MAX	9.5MAX	2.1±0.3	1.0±0.3
STP080812	7.6MAX	8.1MAX	12MAX	4.4±0.3	2±0.3
STP100612	10MAX	6.0MAX	12MAX	2.4±0.3	2.3±0.3
STP100690	9.6MAX	6.45MAX	9.0MAX	2.6±0.3	2.5±0.3
STP100710	10MAX	7.0MAX	10MAX	2.4±0.3	2.4±0.3
STP110812	10.7MAX	7.5MAX	12MAX	3.1±0.3	2.8±0.3
STP110812E	10.7MAX	7.5MAX	12MAX	3.1±0.3	2.8±0.3

■ ELECTRICAL CHARACTERISTICS

Part Number	L (μ H)	DCR (m Ω)	I sat(A)	I rms(A)
STP070795-R20X-HF	0.20 \pm 10%,15%,20%	0.85 \pm 15%	66	28
STP070796-R40X-HF	0.40 \pm 10%,15%,20%	0.85 \pm 15%	30	28
STP070796-R60X-HF	0.60 \pm 10%,15%,20%	0.85 \pm 15%	20	28
STP070796-1R0X-HF	1.0 \pm 10%,15%,20%	0.85 \pm 15%	11	28
STP080812-R12X-HF	0.12 \pm 10%,15%,20%	0.155 \pm 15%	95	60
STP080812-R15X-HF	0.15 \pm 10%,15%,20%	0.155 \pm 15%	86	60
STP080812-R17X-HF	0.17 \pm 10%,15%,20%	0.155 \pm 15%	75	60
STP080812-R22X-HF	0.22 \pm 10%,15%,20%	0.155 \pm 15%	57	60
STP080812-R32X-HF	0.32 \pm 10%,15%,20%	0.155 \pm 15%	37	60
STP100612-R10X-HF	0.10 \pm 10%,15%,20%	0.125 \pm 10%	125	77
STP100612-R12X-HF	0.12 \pm 10%,15%,20%	0.125 \pm 10%	105	77
STP100612-R12X-HF1	0.12 \pm 10%,15%,20% 500KHZ/1V	0.125 \pm 10%	105	77
STP100612-R15X-HF	0.15 \pm 10%,15%,20%	0.125 \pm 10%	83	77
STP100612-R15X-HF1	0.15 \pm 10%,15%,20% 500KHZ/1V	0.125 \pm 10%	83	77
STP100612-R33X-HF	0.33 \pm 10%,15%,20%	0.125 \pm 10%	40	33
STP100690-90NX-HF	0.09 \pm 10%,15%,20%	0.17 \pm 10%	125	66
STP100690-R12X-HF	0.12 \pm 10%,15%,20%	0.17 \pm 10%	94	66
STP100690-R15X-HF	0.15 \pm 10%,15%,20%	0.17 \pm 10%	75	66
STP100690-R21X-HF	0.21 \pm 10%,15%,20%	0.17 \pm 10%	50	66
STP100690-R30X-HF	0.30 \pm 10%,15%,20%	0.17 \pm 10%	33	66
STP100710-R10X-HF	0.10 \pm 15%,20%	0.185 \pm 10%	113	68
STP100710-R12X-HF	0.12 \pm 15%,20%	0.185 \pm 10%	90	68
STP100710-R15X-HF	0.15 \pm 15%,20%	0.185 \pm 10%	80	68
STP100710-R33X-HF	0.33 \pm 15%,20%	0.185 \pm 10%	43	68
STP110812-R15X-HF	0.15 \pm 10%,15%,20%	0.15 \pm 10%	115	75
STP110812-R18X-HF	0.18 \pm 10%,15%,20%	0.15 \pm 10%	85	75
STP110812-R22X-HF	0.22 \pm 10%,15%,20%	0.15 \pm 10%	75	75
STP110812-R25X-HF	0.25 \pm 10%,15%,20%	0.15 \pm 10%	66	75
STP110812-R27X-HF	0.27 \pm 10%,15%,20%	0.15 \pm 10%	60	75
STP110812-R30X-HF	0.30 \pm 10%,15%,20%	0.15 \pm 10%	55	75
STP110812E-R15X-HF	0.15 \pm 10%,15%,20%	0.15 \pm 10%	115	75
STP110812E-R16X-HF	0.16 \pm 10%,15%,20%	0.15 \pm 10%	99	75
STP110812E-R17X-HF	0.17 \pm 10%,15%,20%	0.15 \pm 10%	91.5	75
STP110812E-R18X-HF	0.18 \pm 10%,15%,20%	0.15 \pm 10%	89	75
STP110812E-R20X-HF	0.20 \pm 10%,15%,20%	0.15 \pm 10%	81	75
STP110812E-R22X-HF	0.22 \pm 10%,15%,20%	0.15 \pm 10%	75	75
STP110812E-R25X-HF	0.25 \pm 10%,15%,20%	0.15 \pm 10%	66	75
STP110812E-R27X-HF	0.27 \pm 10%,15%,20%	0.15 \pm 10%	60	75
STP110812E-R32X-HF	0.32 \pm 10%,15%,20%	0.15 \pm 10%	51	75
STP110812E-R40X-HF	0.40 \pm 10%,15%,20%	0.15 \pm 10%	41	75

STP110812E-R47X-HF	0.47±10%,15%,20%	0.15±10%	34	75
STP110812E-R60X-HF	0.69±10%,15%,20%	0.15±10%	24.5	75



The above is part of the conventional product specifications, special specifications can also be customized, more specifications and performance, please consult to our business!

■ Note:

1. Test frequency : L 100KHz/1V or 500KHz/1V .
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (Irms) will cause the coil temperature rise approximately Δt of 40°C
4. Saturation Current (Isat) will cause L0 to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -25°C ~ 45°C < 70%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.
9. Rated DC Current: The less value which is Isat or Irms

THT Ultra high current power inductor

TFN TFB TFP series

THT 超大電流 パワーインダクタ

TFN TFB TFP シリーズ

P.132～137

Ultra High Current Power Inductor TFN/TFB/TFP Ferrite Cores TYPE

■ Features

1. Ultra low cost.
2. Shielded construction.
3. Ultra High current rating up to DC 60Amp.
4. High frequency range up to 5.0MHz.
5. Very low DC resistance.
6. RoHS compliant .



■ Applications

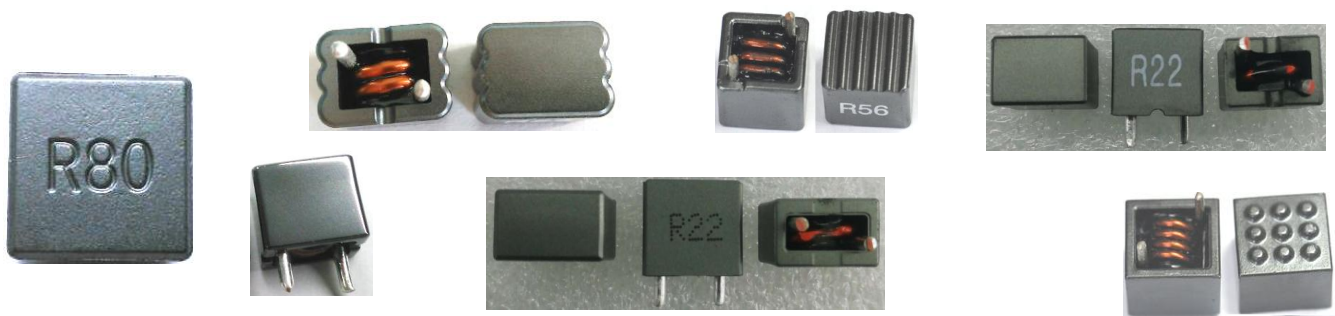
Desktop PC, Server, High class Graph card, DC/DC converter

■ Product Identification

TFN XXXX - XXX X XX
① ② ③ ④ ⑤

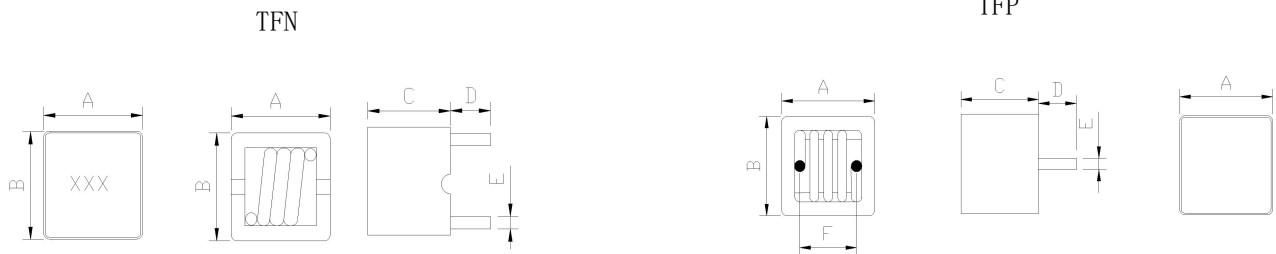
- ①: Product Symbol
- ②: Dimensions
- ③: Inductance
- ④: Inductance Tolerance
- ⑤: Serial Number

■ Product Picture



**Customers' designs and requirements are welcome.
More specifications and performance, please consult to our business!**

■ Product Dimension



Unit : mm

SERIES	A(Typ)	B(Typ)	C(Typ)
TFN0706	8.4	8	6.35
TFN0707A	7	7	7
TFN0808	7.8	7.8	7
TFN0809	8	8.4	9
TFN8285	8.2	8.2	8.5
TFN8290	8.2	8.2	9
TFN8590	8.5	8.5	9
TFN0709	8.4	9	9
TFN1006	10.3	6.5	9.7
TFN1007	10.2	7.2	8.7
TFN1007L	12	9	9
TFN1008	10.5	8.5	9.7
TFN1009D	10.5	7.3	9.7
TFB1008	10	10	8
TFN1009	10	10	9
TFN1095	10	7	9.5
TFN1096	10	10	9.8
TFN1097	10	9.6	9.6
TFN1108	11.3	11.3	7.85
TFN1109	11.1	9.4	9.85
TFN1110	11.3	11.3	9.7
TFN1111	10.8	10.8	10.3
TFN1211	11.05	12	10.3
TFN1212	12.3	12.3	10.5
TFP1212	12.6	11.75	10.5
TFN1310	13.2	13.5	10.5
TFN1009A	10.4	6.4	9.5

Note: The above dimensions are for reference only

■ ELECTRICAL CHARACTERISTICS

Part Number	L (μ H)	DCR (m Ω) TYP(max)	I sat(A)	I rms(A)
TFN0706I-1R0M-XX	1	3.5	18	16
TFN0706-1R0M-XX	1	3.5	18	16
TFN0707A-R50M-XX	0.5	2.09	18	15
TFN0808-R33M-XX	0.33	1.65	35	15
TFN0808-R36M-XX	0.36	1.65	35	25
TFN0808-R36M-XX	0.36	2.05	30	15
TFN0808-R47M-XX	0.47	2.05	22	21
TFN0808-R60M-XX	0.6	4.2	31	20
TFN0808-1R0M-XX	1	3	16	12
TFN0808-1R2M-XX	1.2	4.3	15	12
TFN0808-1R5M-XX	1.5	4.5	11	13
TFN0808-2R2M-XX	2.2	7.5	14	9
TFN0808-3R3M-XX	3.3	15	14	8
TFN0808-4R7M-XX	7.4	15	9	7
TFN0809-R33M-XX	0.33	1.2	40	27
TFN0809-R56M-XX	0.56	2.3	30	25
TFN0809I-1R0M-XX	1	3.5	15	15
TFN0809-2R2M-XX	2.2	5.23	15	10
TFN0809-3R3M-XX	3.2	15	14	8
TFN8285-1R0-XX	1	3.5	25	15
TFN8290-R47M-XX	0.47	1.7	35	20
TFN8290-R70L-XX	0.7	1.7	30	20
TFN8290-R90M-XX	0.9	1.7	25	20
TFN8290-1R0M-XX	1	1.7	20	15
TFN8290-1R0M-XX	1	2.1	25	20
TFN8590-R22M-XX	0.22	1.15	70	30
TFN8590-R33M-XX	0.33	1.15	38	27.5
TFN0709-R33M-XX	0.33	1.4	45	40
TFN0709-1R0M-XX	1	3.2	25	17
TFN0709-1R2M-XX	1.2	3.5	20	15
TFN0709-1R5M-XX	1.5	3.5	18	15
TFN0709-2R2M-XX	2.2	5.5	18	14

TFN1006-R22M-XX	0.22	0.6	70	45
TFN1006-R30M-XX	0.3	0.6	45	33
TFN1006-R36M-XX	0.36	0.6	32	33
TFN1006-R47P-XX	0.47	0.86	48	38
TFN1006-1R0N-XX	1	1.8	25	18
TFN1007-R15M-XX	0.15	0.65	60	35
TFN1007I-R22M-XX	0.22	0.67	58	35
TFN1007G-R30M-XX	0.3	0.67	35	35
TFN1007-R33M-XX	0.33	0.65	40	35
TFN1007-R50M-XX	0.5	1.8	35	30
TFN1007-1R0M-XX	1	4	24	15
TFN1007-1R5M-XX	1.5	3.9	22	15
TFN1007-2R2M-XX	2.2	7.9	18	10
TFN1007L-R22M-XX	0.22	0.67	58	35
TFN1007LI-R22M-XX	0.22	0.67	58	35
TFN1008-R47M-XX	0.47	1.2	35	28
TFN1008-R50M-XX	0.5	1.2	35	28
TFN1009D-1R2M-XX	1.2	2.9	28	20
TFB1008-R50M-XX	0.5	1.3	40	35
TFB1008-R80M-XX	0.8	1.3	30	30
TFN1009-R15M-XX	0.15	0.8	50	40
TFN1009-R22M-XX	0.22	0.8	50	40
TFN1009I-R33M-XX	0.33	0.8	40	36
TFN1009-R47M-XX	0.47	0.8	30	30
TFN1009-R56M-XX	0.56	1.2	40	30
TFN1009-R60M-XX	0.6	1.3	40	32
TFN1009-R68M-XX	0.68	1.6	34	32
TFN1009I-R80M-XX	0.8	1.3	32	30
TFN1009I-1R0M-XX	1	2	25	25
TFN1009-1R5M-XX	1.5	3.4	22	20
TFN1009-2R0M-XX	2	3.4	16	14
TFN1009-2R2M-XX	2.2	4.5	15	14
TFN1009-3R3M-XX	3.3	7	11	10
TFN1009-4R7M-XX	4.7	8.5	8.5	8
TFN1095-R22M-XX	0.22	0.48	58	40
TFN1095-R33M-XX	0.33	0.48	45	40
TFN1095-R36M-XX	0.36	0.48	40	40
TFN1095-R47M-XX	0.47	1.15	38	35

TFN1009C-R36M-XX	0.36	0.8	55	40
TFN1009C-R47M-XX	0.47	0.92	40	/
TFN1009C-1R0L-XX	1	1.45	30	30
TFN1009C-1R1M-XX	1.1	1.45	27	25
TFN1097-3R3M-XX	3.3	4.4	11	10
TFN1108-R25M-XX	0.25	0.8	50	38
TFN1108-R47N-XX	0.47	0.8	42	35
TFN1108-R56N-XX	0.56	1.05	45	32
TFN1109G-R22M-XX	0.22	0.8	68	40
TFN1109G-R30M-XX	0.3	0.8	40	35
TFN1109-R36L-XX	0.36	0.7	45	36
TFN1109-1R0M-XX	1	1	30	40
TFN1109-1R0M-XX	1	2	50	28
TFN1110-R30M-XX	0.3	1	50	41
TFN1110-R33M-XX	0.33	0.8	40	35
TFN1110-R47M-XX	0.47	0.8	40	35
TFN1110-R50M-XX	0.5	0.93	40	35
TFN1110I-R60M-XX	0.6	0.8	50	41
TFN1110-R80M-XX	0.8	1	35	32
TFN1110-1R0M-XX	1	1.4	35	30
TFN1110-1R1M-XX	1.1	1.9	37	25
TFN1110-1R5M-XX	1.5	3.1	35	25
TFN1110-1R6M-XX	1.6	2.1	25	/
TFN1110-1R8M-XX	1.8	4	20	20
TFN1110-2R0M-XX	2	3.3	27	20
TFN1110-2R2M-XX	2.2	4	28	20
TFN1110-3R3M-XX	3.3	4.7	15	15
TFN1110-4R7M-XX	4.7	7.5	16	12
TFN1111A-1R2M-XX	1.2	1.6	28	21
TFN1111A-2R2P-XX	2.2	1.35	44	25
TFN1111A-2R2M-XX	2.2	2.8	25	20
TFN1211-R30M-XX	0.3	0.8	50	45
TFN1211-R47M-XX	0.47	1.2	45	35
TFN1211I-R56M-XX	0.56	1.1	45	45
TFN1211-R68N-XX	0.68	1.8	40	35
TFN1211-2R2N-XX	2.2	2	20	20
TFN1212-R22M-XX	0.22	1.3	60	40
TFN1212-R47M-XX	0.47	1	45	40
TFN1212-R68M-XX	0.68	1.5	50	40
TFN1212-R80M-XX	0.8	1.5	45	40

TFP1212-R47M-XX	0.47	1.5	40	35
TFP1212-R56M-XX	0.56	1.4	45	40
TFP1212-R68M-XX	0.68	1.8	35	27
TFP1212HI-1R0M-XX	1	1.5	40	36
TFP1212-1R5M-XX	1.5	2.2	20	18
TFP1212-2R0M-XX	2	2.2	20	18
TFP1212-2R2M-XX	2.2	2.5	12	15
TFP1212H-3R3M-XX	3.3	3.5	20	18
TFP1212-4R7M-XX	4.7	3.3	12	5
TFN1310-2R2M-XX	2.2	2.75	40	25
TFN1009A-R25L-XX	0.25	0.6	55	20

Remarks: The above products can be designed for surface polishing, top lettering, wavy and convex .

The above is part of the conventional product specifications, special specifications can also be customized, more specifications and performance, please consult to our business!

■ Note:

1. Test frequency : L : 100KHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (Irms) will cause the coil temperature rise approximately Δt of 40°C
3. Saturation Current (Isat) will cause L0 to drop approximately 20%
Saturation Current (Isat) will cause L0 to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -25°C ~ 45°C < 70%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.

THT Ultra high current power inductor

TIN TIB TIP series

THT 超大電流 パワーインダクタ

TIN TIB TIP シリーズ

P.139～143

Ultra High Current Power Inductor TIN/TIB/TIP Ferrite Cores TYPE

■ Features

1. Ultra low cost.
2. Shielded construction.
3. Ultra High current rating up to DC 60Amp.
4. High frequency range up to 1.0MHz.
5. Very low DC resistance.
6. RoHS compliant .



■ Applications

Desktop PC, Server, High class Graph card, DC/DC converter

■ Product Identification

TIN XXXX - XXX X XX
① ② ③ ④ ⑤

①: Product Symbol

②: Dimensions

③: Inductance

④: Inductance Tolerance

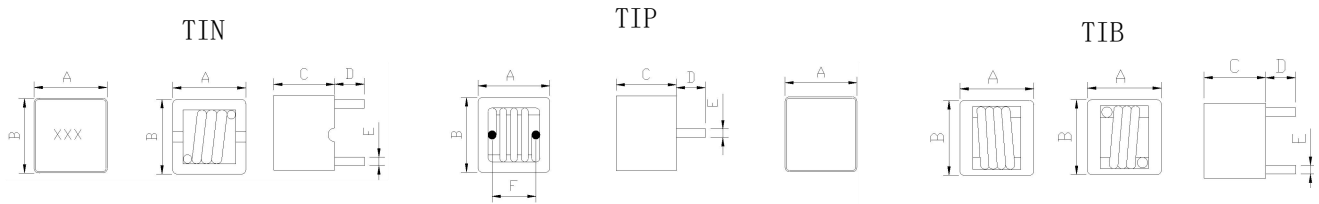
⑤: Serial Number

■ Product Picture



**Customers' designs and requirements are welcome.
More specifications and performance, please consult to our business!**

■ Product Dimension



Unit : mm

SERIES	A(Typ)	B(Typ)	C(Typ)
TIN0806	7.9	7.9	6.7
TIN0807	8	8	7.1
TIN0808	8	8	7
TIN8490	8.4	9	8.2
TIN1006H	10.3	6.3	9.5
TIN1007	10.2	7.3	8.7
TIN1007H	10.2	7.3	8.7
TIN1009	10.9	9	10
TIN1009A	10	10	9
TIN1009H	10	10	9
TIN1009C	10	10	9.2
TIN1095H	10.2	7.4	9.5
TIN1109	11.3	11.3	9.3
TIN1109H	11.3	11.3	9.3
TIN1212	12	12	10.5
TIN1312	13.5	12.5	10.5
TIP0708	8.65	7.95	7.2
TIP0807	8.8	7.2	8
TIP0807H	8.8	7.2	8
TIB0806	7.9	7.9	5.6
TIB1008	11	9	8.2
TIB1108	11.3	11.3	8.2
TIB1511	15.5	13	11

Note: The above dimensions are for reference only

■ ELECTRICAL CHARACTERISTICS

Part Number	L (μ H)	DCR (m Ω) TYP/MAX	I sat(A)	I rms(A)
TIN0806-R30M-XX	0.3	1.55	50	31
TIN0806-R60M-XX	0.6	1.9	25	31
TIN0806-1R0L-XX	1	3	23	18
TIN0806-1R0M-XX	1	3.8	22	14
TIN0806-1R2M-XX	1.2	4.3	21	15
TIN0806-2R2M-XX	2.2	10.5	14	7
TIN0806-4R7M-XX	4.7	22.5	5	5
TIN0807-R36M-XX	0.36	1.6	50	30
TIN0808-R36M-XX	0.36	1.6	50	30
TIN0808-R47M-XX	0.47	2	20	20
TIN0808-R60M-XX	0.6	4.2	31	20
TIN0808-R80M-XX	0.8	3.4	15	12
TIN0808I-1R0M-XX	1	4.3	15	12
TIN0808-1R2M-XX	1.2	4.3	15	12
TIN0808-2R2M-XX	2.2	7.5	14	9
TIN0808-4R7M-XX	4.7	28	5	5
TIN8490-R56M-XX	0.56	2	44	40
TIN1006H-R22M-XX	0.22	0.6	70	50
TIN1006H-R30M-XX	0.3	0.6	55	45
TIN1007-R47M-XX	0.47	1.1	50	35
TIN1007H-R22M-XX	0.22	0.65	100	60
TIN1007H-R47M-XX	0.47	1.1	50	35
TIN1009-R22M-XX	0.22	0.72	60	40
TIN1009I-R30M-XX	0.3	0.72	55	40
TIN1009-R50M-XX	0.5	1.05	40	40
TN1009-1R0M-XX	1	2	50	28
TIN1009I-1R0M-XX	1	2.2	25	20
TIN1009-2R0M-XX	2	5	30	18
TIN1009A-R22M-XX	0.22	0.65	50	40
TIN1009AI-R33M-XX	0.33	0.65	60	45
TIN1009A-R33M-XX	0.33	0.65	50	40
TIN1009A-R47M-XX	0.47	1	45	35
TIN1009A-R50M-XX	0.5	1	45	35
TIN1009A-R56M-XX	0.56	1	50	38
TIN1009AI-R80M-XX	0.8	1.3	32	30
TIN1009A-R80M-XX	0.8	1.3	32	30
TIN1009A-1R0M-XX	1	2	35	28

TIN1009H-R10M-XX	0.1	0.37	120	50
TIN1009H-R10M-XX	0.1	0.48	120	52
TIN1009H-R22M-XX	0.22	0.67	120	50
TIN1009H-R22M-XX	0.22	0.72	120	46
TIN1009H-R33M-XX	0.33	0.67	100	50
TIN1009H-R47M-XX	0.47	1.05	100	50
TIN1009H-R68M-XX	0.68	1.2	65	40
TIN1009H-1R0M-XX	1	2.2	40	38
TIN1009C-R56M-XX	0.56	1	50	38
TIN1009C-1R0M-XX	1	2.6	40	25
TIN1095H-R22M-XX	0.22	0.48	100	60
TIN1109-R22M-XX	0.22	0.52	70	56
TIN1109-R30M-XX	0.3	0.6	50	38
TIN1109-R36M-XX	0.36	0.79	60	45
TIN1109I-R47M-XX	0.47	0.8	50	41
TIN1109-R60M-XX	0.6	0.8	50	41
TIN1109I-1R0M-XX	1	1.4	35	31
TIN1109-1R2M-XX	1.2	1.8	35	25
TIN1109-1R5M-XX	1.5	1.8	27	25
TIN1109-1R7M-XX	1.7	2.2	21	12
TIN1109-2R0M-XX	2	3.4	30	20
TIN1109-2R2M-XX	2.2	3.3	30	20
TIN1109-3R3M-XX	3.3	7.2	20	20
TIN1109H-R22M-XX	0.22	0.5	120	60
TIN1212-R47M-XX	0.47	1.5	50	45
TIN1212-1R0M-XX	1	2	36	32
TIN1312-R47M-XX	0.47	0.95	50	40
TIN1312-R60M-XX	0.6	0.75	45	40
TIN1312-1R0M-XX	1	1.15	45	35
TIN1312-1R5M-XX	1.5	2	42	30
TIN1312-2R0M-XX	2	3.5	35	24
TIN1312-2R2M-XX	2.2	3.3	25	23
TIP0708I-1R0M-XX	1	6.5	25	15
TIP0708-1R5M-XX	1.5	9	15	15
TIP0708-4R7M-XX	4.7	28	5	/
TIP0807-R22M-XX	0.22	2	35	25
TIP0807-R47M-XX	0.47	2.1	22	20
TIP0807-R56M-XX	0.56	2.5	26	18
TIP0807-R80M-XX	0.8	3.3	24	16
TIP0807I-1R0M-XX	1	3.9	18	15
TIP0807I-2R8M-XX	2.8	5.5	15	12
TIP0807I-4R7M-XX	4.7	20	11	5

TIP0807H-R22M-XX	0.22	1.5	45	32
TIP0807H-R33M-XX	0.33	2.1	45	26
TIP0807H-R47M-XX	0.47	2.1	22	20
TIP0807H-R56M-XX	0.56	2.5	40	25
TIP0807H-R68M-XX	0.68	2.5	30	25
TIP0807H-R80M-XX	0.8	3.3	24	16
TIP0807H-1R0M-XX	1	4.1	20	18
TIP0807H-1R2M-XX	1.2	4.1	20	18
TIP0807H-1R5M-XX	1.5	4.77	15	15
TIP0807H-2R2M-XX	2.2	5.5	12	9
TIP0807H-3R3M-XX	3.3	12.75	12	8
TIB0806-R60M-XX	0.6	1.9	25	31
TIB0806-1R0L-XX	1	3	23	18
TIB1008-R30L-XX	0.3	0.7	50	40
TIB1008-R36L-XX	0.36	0.65	50	43
TIB1008-R68M-XX	0.68	1.9	40	27
TIB1008-1R0M-XX	1	2	50	28
TIB1108-R19M-XX	0.19	0.8	60	45
TIB1108-R25M-XX	0.25	0.8	50	38
TIB1108-R33M-XX	0.33	0.8	50	38
TIB1108-R36M-XX	0.36	0.8	50	38
TIB1108-R47M-XX	0.47	0.8	50	38
TIB1108-R60M-XX	0.6	0.8	40	38
TIB1108-1R0L-XX	1	1.3	40	35
TIB1108-1R2M-XX	1.2	2	40	29
TIB1108-1R4L-XX	1.4	1.95	25	24
TIB1108-2R0M-XX	2	3.3	30	20
TIB1108-4R7M-XX	4.7	9.5	20	10
TIB1511-4R7M-XX	4.7	6.8	24	12

Remarks: The above products can be treated with surface design color, top lettering, wave and bump etc.

The above is part of the conventional product specifications, special specifications can also be customized, more specifications and performance, please consult to our business!

1. Test frequency : L : 100KHz /1V.
2. All test data referenced to 25°C ambient.
3. Heat Rated Current (I_{rms}) will cause the coil temperature rise approximately Δt of 40°C
3. Saturation Current (I_{sat}) will cause L0 to drop approximately 20%
Saturation Current (I_{sat}) will cause L0 to drop approximately 30%
5. Operating Temperature Range -40°C ~ 125°C.
6. Storage temperature and Humidity range -25°C ~ 45°C < 70%RH.
7. The part temperature (ambient + temp rise) should not exceed 125°C under worst case operating conditions. Circuit design, component, PCB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.
8. Special inquiries besides the above common used types can be met on your requirement.