



SMD Wire-Wound Ferrite Chip Inductor For Power Line

Wire wound ferrite chip inductor offers the overall combination of low cost, close tolerance, better Q factor and high self-resonant multiplayer chip inductor.

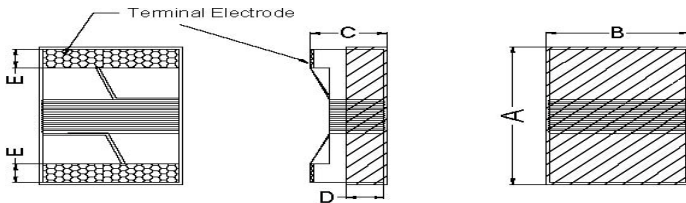
SFI P-Series

SFI2012P type

SFI2012P [0805 inch]



◆ SHAPE & DIMENSIONS



SFI2012P	Dimensions
A (mm)	2.40 max
B (mm)	1.60 max
C (mm)	1.40 max
D (mm)	0.51(ref)
E (mm)	0.45±0.10

◆ PART NUMBER CONSTRUCTION

SFI	2012	P	78N	K	T
Series name	L*W*T Dimensions (mm)	P type Power Line	Inductance (uH) at 7.9MHz	Inductance Tolerance	Taping
SMD Ferrite Inductor	2.4*1.6*1.4		78N 2R2 220	B = ±0.2nH	
			90N 2R7 270	S = ±0.3nH	
			R11 3R3 330	G = ±2%	
			R33 3R9 470	J = ±5%	
				K = ±10%	
				M = ±20%	
			R47 4R7		
			R56 5R6		
			R68 6R8		
			R75 8R2		
			R82 100		
			1R0 150		
			1R2 170		
			1R5 180		
			1R8 200		

◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

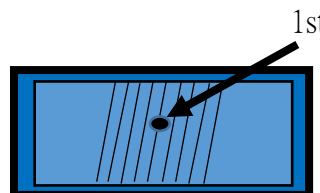
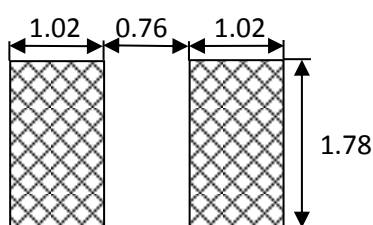
Type	Temperature range		Reel Dimensions (mm)	Package quantity (pieces/reel)
	Operating Temperature °C	Storage Temperature °C		
SFI2012P-Series	-25 to +85	-25 to +85	ø180	3,000



◆ ELECTRICAL CHARACTERISTICS

Inductance 7.9MHz (uH)	Inductance Tolerance	Q 7.9MHz min.	DC Resistance (Ω) max.	IDC (mA) max.	SRF (MHz) Min.	Part No.
0.078	K,M	10	0.06	2000	1440	SFI2012P-78N□
0.09	K,M	10	0.10	2000	1200	SFI2012P-90N□
0.11	K,M	10	0.07	2000	1200	SFI2012P-R11□
0.33	K,M	10	0.15	1000	850	SFI1608P-R33□
0.47	K,M	10	0.20	750	720	SFI2012P-R47□
0.56	K,M	10	0.21	730	665	SFI2012P-R56□
0.68	K,M	10	0.28	670	565	SFI2012P-R68□
0.75	K,M	10	0.30	660	550	SFI2012P-R75□
0.82	K,M	10	0.31	650	545	SFI2012P-R82□
1.0	K,M	10	0.34	615	525	SFI2012P-1R0□
1.2	K,M	10	0.39	550	473	SFI2012P-1R2□
1.5	J,K,M	10	0.45	520	300	SFI2012P-1R5□
1.8	J,K,M	10	0.48	500	230	SFI2012P-1R8□
2.2	K,M	10	0.67	420	215	SFI2012P-2R2□
2.7	K,M	10	0.74	410	140	SFI2012P-2R7□
3.3	K,M	10	0.81	385	95	SFI2012P-3R3□
3.9	K,M	10	0.88	372	57	SFI2012P-3R9□
4.7	K,M	10	1.10	345	51	SFI2012P-4R7□
5.6	K,M	10	1.30	335	44	SFI2012P-5R6□
6.8	K,M	10	1.21	315	39	SFI2012P-6R8□
8.2	K,M	10	1.33	295	33	SFI2012P-8R2□
Inductance 2.5MHz (uH)	Inductance Tolerance	Q 2.5MHz min.	DC Resistance (Ω) max.	IDC (mA) max.	SRF (MHz) Min.	Part No.
10	K,M	10	1.79	260	30	SFI2012P-100□
12	K,M	10	1.98	250	27	SFI2012P-120□
15	K,M	10	2.68	215	22	SFI2012P-150□
17	K,M	10	3.40	200	21	SFI2012P-170□
18	K,M	10	3.10	195	20	SFI2012P-180□
20	K,M	10	3.48	190	19	SFI2012P-200□
22	K,M	10	4.00	180	18	SFI2012P-220□
27	K,M	10	5.60	170	16	SFI2012P-270□
33	K,M	10	7.60	145	15	SFI2012P-330□
47	K,M	10	8.60	100	10	SFI2012P-470□

◆ Recommended Soldering Conditions (Please use this product by reflow soldering)

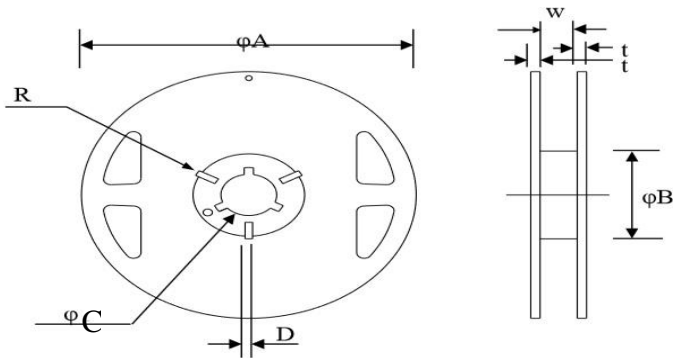


Color Coding

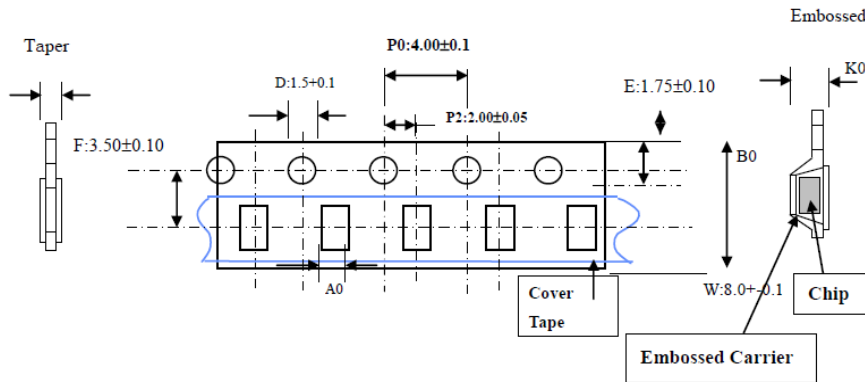


Solder Heat Resistance	Appearance: NO significant abnormality. Inductance change: Within+-20%.	Preheat: 150°C, 60sec. Solder temperature: 260±5°C Flux for lead :rosin Dip time: 10±0.5sec															
Solder ability Test	More than 90% of the terminal electrode Should be covered with solder.	Preheat: 150°C, 60sec. Solder temperature: 230±5°C Flux for lead :rosin Dip time: 4±1sec															
Reliability Test																	
High Temperature Life Test	Appearance: no damage. Inductance: within+-20% of initial value. No disconnection or short circuit.	Temperature: 85±5°C. Duration: 500±12hrs Measured at room temperature after placing for 2 to 3hrs.															
Low Temperature Life Test	Appearance: no damage Inductance: within+-20% of initial value. No disconnection or short circuit.	Temperature: -40±5°C. Duration: 500±12hrs Measured at room temperature after placing for 2 to 3hrs. 測試後室溫放置2-3小時，才可以測試電氣特性.															
Thermal shock	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">階段</th> <th style="width: 25%;">溫度°C</th> <th style="width: 15%;">時間 (分)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">-40±3°C</td> <td style="text-align: center;">30±3</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">常溫</td> <td style="text-align: center;">Within3</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">+85±3°C</td> <td style="text-align: center;">30±3</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">常溫</td> <td style="text-align: center;">Within3</td> </tr> </tbody> </table> <p style="text-align: center;">測試性能同上</p>	階段	溫度°C	時間 (分)	1	-40±3°C	30±3	2	常溫	Within3	3	+85±3°C	30±3	4	常溫	Within3	Condition for 1 cycle Step1: -40±3°C 30±3 min. Step2: Room Temperature within 3min. Step3: +85±3°C 30±3min Step4: Room Temperature within 3min. Number of cycles: 10 測試後室溫放置2-3小時，才可以測試電氣特性.
階段	溫度°C	時間 (分)															
1	-40±3°C	30±3															
2	常溫	Within3															
3	+85±3°C	30±3															
4	常溫	Within3															
Humidity Resistance	Appearance: no damage Inductance: within+-20% of initial value. No disconnection or short circuit.	Humidity: 90-95%RH Temperature: 60±5°C Applied current: Rated current. Duration: 500±12hrs. 放置時間：500±12hrs Measured at room temperature after placing for 2 to 3hrs. 測試後室溫放置2-3小時，才可以測試電氣特性.															

◆ Reel Dimension & Tape Dimension



Type	A(mm)	B(mm)	C(mm)	W(mm)
7"x8mm	178±1.0	60±0.5	13.5±0.5	9.5±0.5



Size	B0(mm)	A0(mm)	K0(mm)
1608	1.80±0.10	1.30±0.10	1.25±0.10
2012	2.50±0.10	1.60±0.10	1.25±0.10
2520	2.93±0.05	2.61±0.05	2.25±0.05

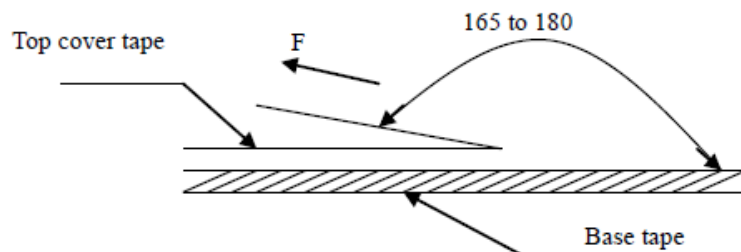
The force for tearing off cover tape is 15 to 60 grams in the arrow direction at the following conditions:

Temperature : 5 ~ 35°C

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa

Tearing Speed: 300Mm/min



◆ Packaging Quantity

Chip Size	1608	2012	2520
8mm / Reel	2000/3000	2000/3000	2000