

SMD Wire-Wound Ferrite Chip Inductor For Power Line

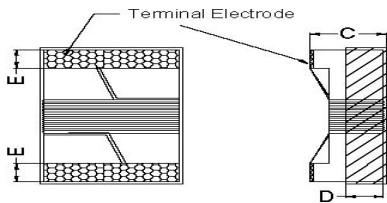
Wire wound ferrite chip inductor offers the overall combination of low cost, close tolerance, better Q factor and high self-resonant multilayer chip inductor.

SFI P-Series

SFI1608P type

SFI1608P [0603 inch]

◆ SHAPE & DIMENSIONS



SFI1608P	Dimensions
A (mm)	1.80 max
B (mm)	1.20 max
C (mm)	1.20 max
D (mm)	0.38(ref)
E (mm)	0.35±0.10

◆ PART NUMBER CONSTRUCTION

SFI	1608	P
Series name	L*W*T Dimensions (mm)	P type Power Line
SMD Ferrite Inductor	1.8*1.2*1.2	

47N	K	T
Inductance (uH) at 2.5/7.9MHz		Inductance Tolerance
47N	R82	8R2
72N	1R0	100
R10	1R2	150
R12	1R5	180
R15	1R8	220
R18	2R2	
R22	2R7	
R27	3R3	
R33	3R9	
R39	4R2	
R47	4R7	
R56	5R6	
R68	6R8	

B = ±0.2nH
 S = ±0.3nH
 G = ±2%
 J = ±5%
 K = ±10%
 M = ±20%

◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

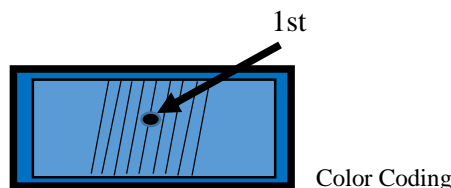
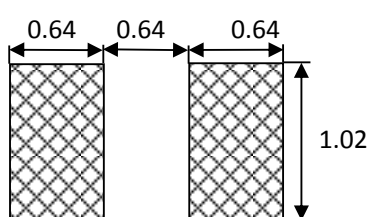
Type	Temperature range		Reel Dimensions (mm)	Package quantity (pieces/reel)
	Operating Temperature °C	Storage Temperature °C		
SFI1608P-Series	-25 to +85	-25 to +85	ø180	3,000

◆ ELECTRICAL CHARACTERISTICS

Inductance 7.9MHz (uH)	Inductance Tolerance	Q 7.9MHz min.	RDC (Ω) max.	IDC (mA) max.	SRF (MHz) Min.	Part No.
0.047	K,M	10	0.075	1500	1700	SFI1608P-47N□
0.072	K,M	10	0.12	1500	1700	SFI1608P-72N□
0.10	K,M	10	0.13	1400	1150	SFI1608P-R10□
0.12	K,M	10	0.15	1400	1100	SFI1608P-R12□
0.15	K,M	10	0.15	1300	1050	SFI1608P-R15□
0.18	K,M	10	0.15	1300	950	SFI1608P-R18□
0.22	K,M	10	0.15	950	800	SFI1608P-R22□
0.27	K,M	10	0.20	710	775	SFI1608P-R27□
0.33	K,M	10	0.35	620	725	SFI1608P-R33□
0.39	K,M	10	0.39	600	620	SFI1608P-R39□
0.47	K,M	10	0.43	570	540	SFI1608P-R47□
0.56	K,M	10	0.47	550	525	SFI1608P-R56□
0.68	K,M	10	0.68	470	460	SFI1608P-R68□
0.82	K,M	10	0.80	400	410	SFI1608P-R82□
1.0	J,K	10	0.81	400	190	SFI1608P-1R0□
1.2	J,K	10	0.87	370	160	SFI1608P-1R2□
1.5	J,K	10	0.96	350	100	SFI1608P-1R5□
1.8	J,K	10	1.1	350	80	SFI1608P-1R8□
2.2	J,K	10	1.2	320	68	SFI1608P-2R2□
2.7	J,K	10	1.3	290	50	SFI1608P-2R7□
3.3	J,K	10	1.5	280	42	SFI1608P-3R3□
3.9	J,K	10	1.6	280	40	SFI1608P-3R9□
4.2	J,K	10	2.0	270	36	SFI1608P-4R2□
4.7	J,K	10	2.1	260	34	SFI1608P-4R7□
5.6	J,K	10	2.6	240	32	SFI1608P-5R6□
6.8	J,K	10	3.1	200	31	SFI1608P-6R8□
8.2	J,K	10	4.4	190	26	SFI1608P-8R2□

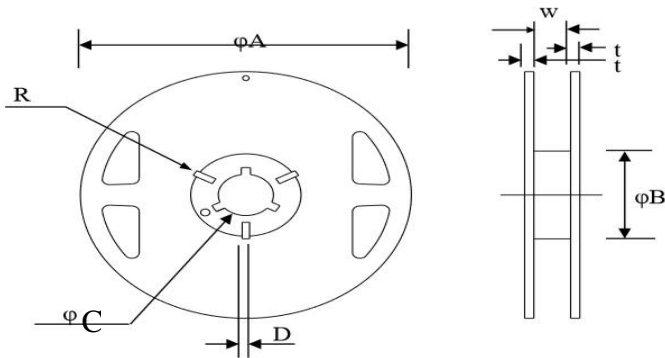
Inductance 2.5MHz (uH)	Inductance Tolerance	Q 2.5MHz min.	RDC (Ω) max.	IDC (mA) max.	SRF (MHz) Min.	Part No.
10	J,K	10	4.8	180	25	SFI1608P-100□
15	J,K	10	6.8	130	20	SFI1608P-150□
18	J,K	10	6.8	100	16	SFI1608P-180□
22	J,K	10	8.0	80	13	SFI1608P-220□

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

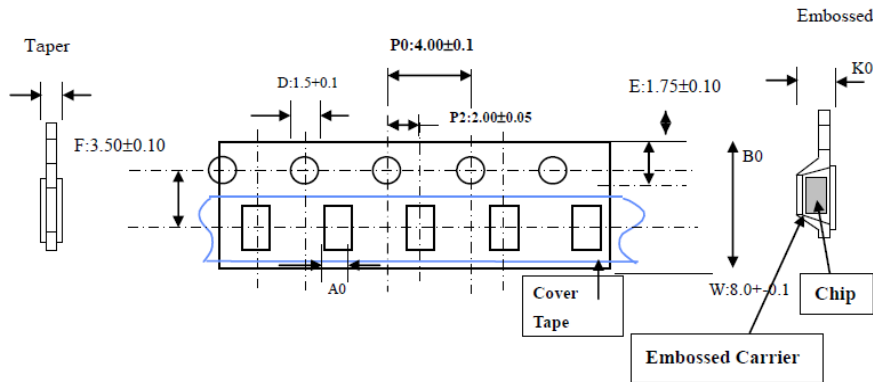


Solder Heat Resistance	Appearance: NO significant abnormality. Inductance change: Within \pm 20%.	Preheat: 150°C, 60sec. Solder temperature: 260 \pm 5°C Flux for lead :rosin Dip time: 10 \pm 0.5sec															
Solder ability Test	More than 90% of the terminal electrode Should be covered with solder.	Preheat: 150°C, 60sec. Solder temperature: 230 \pm 5°C Flux for lead :rosin Dip time: 4 \pm 1sec															
Reliability Test																	
High Temperature Life Test	Appearance: no damage. Inductance: within \pm 20% of initial value. No disconnection or short circuit.	Temperature: 85 \pm 5°C. Duration: 500 \pm 12hrs Measured at room temperature after placing for 2 to 3hrs.															
Low Temperature Life Test	Appearance: no damage Inductance: within \pm 20% of initial value. No disconnection or short circuit.	Temperature: -40 \pm 5°C. Duration: 500 \pm 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: 30%;">溫度°C</th> <th style="width: 25%;">時間 (分)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">-40\pm3°C</td> <td style="text-align: center;">30\pm3</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\pm3°C</td> <td style="text-align: center;">30\pm3</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> 測試性能同上	階段	溫度°C	時間 (分)	1	-40 \pm 3°C	30 \pm 3	2	常溫	Within3	3	+85 \pm 3°C	30 \pm 3	4	常溫	Within3	Condition for 1 cycle Step1: -40 \pm 3°C 30 \pm 3 min. Step2: Room Temperature within 3min. Step3: +85 \pm 3°C 30 \pm 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 \pm 3°C	30 \pm 3															
2	常溫	Within3															
3	+85 \pm 3°C	30 \pm 3															
4	常溫	Within3															
Humidity Resistance	Appearance: no damage Inductance: within \pm 20% of initial value. No disconnection or short circuit.	Humidity: 90-95%RH Temperature: 60 \pm 5°C Applied current: Rated current. Duration: 500 \pm 12hrs. 放置時間：500 \pm 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

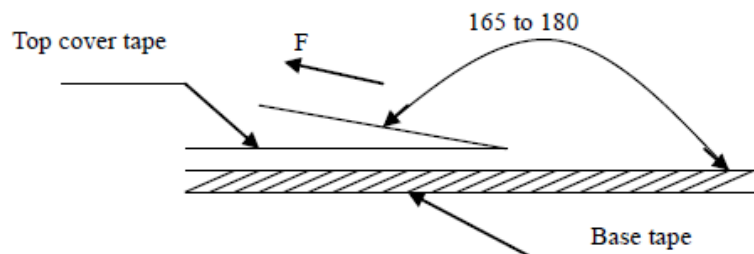
The force for tearing off cover tape is 15 to 60 grams in the arrow direction at the following conditions:

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