Overview Of SFI2012P Series

BINGRI

2019/6/6

SMD Wire-Wound Ferrite Chip Inductor For Power Line

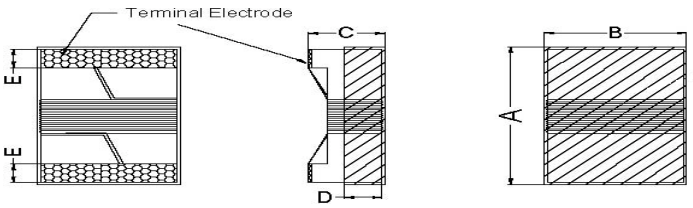
Wire wound ferrite chip inductor offers the overall combination of low cost, close tolerance, better Q factor and high self-resonant multiplayer chip inductor.

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 7.9/ 2.52MHz	Inductance Tolerance	Taping
SMD Ferrite Inductor	2.4*1.6*1.4			78N 2R2 220 90N 2R7 270 R11 3R3 330 R33 3R9 470 R47 4R7 R56 5R6 R68 6R8 R75 8R2 R82 100 1R0 120 1R2 150 1R5 170 1R8 180 200	B = ±0.2nH S = ±0.3nH G = ±2% J = ±5% K = ±10% M = ±20%	

◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

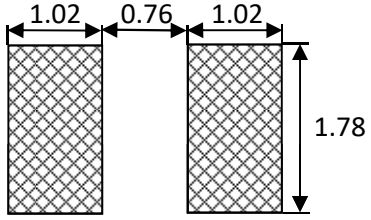
Type	Temperature range		Reel Dimensions (mm)	Package quantity (pieces/reel)
	Operating Temperature ℃	Storage Temperature ℃		
SFI2012P-Series	–25 to +85	–25 to +85	ø180	2K/3K

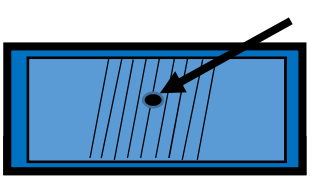
SFI2012P-Series (SMD Wire-Wound Ferrite Chip Inductor For Power Line BINGRI

◆ ELECTRICAL CHARACTERISTICS 2019/6/6

Inductance 7.96MHz (uH)	Inductance Tolerance	Q 7.96MHz 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	SFI2012P-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	K,M	10	0.45	520	300	SFI2012P-1R5□
1.8	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 2.52MHz (uH)	Inductance Tolerance	Q 2.52MHz 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)

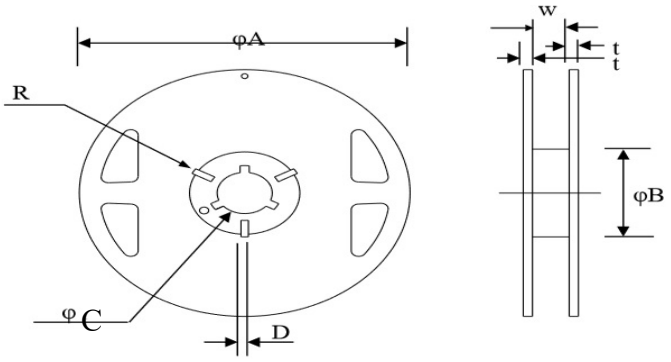




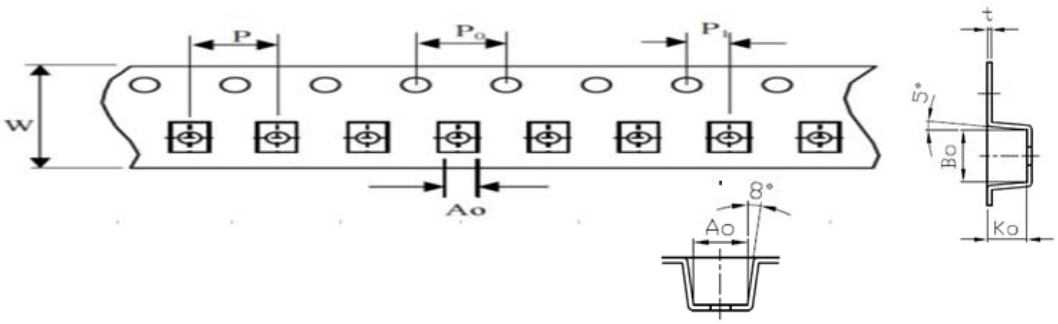
Color Coding

Solder Heat Resistance	Appearance: NO significant abnormality. Inductance change: Within+-20%.	Preheat:150°C,60sec. Solder tamperature: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 tamperature: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	階段 / 溫度°C / 時間（分） 1 / -40+-3°C / 30+-3 2 / 常溫 / Within3 3 / +85+-33°C / 30+-3 4 / 常溫 / Within3 測試性能同上	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.
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

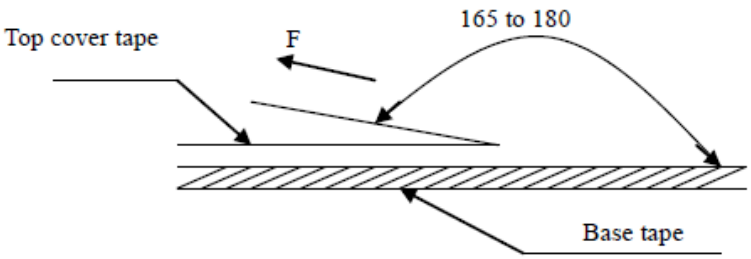


Type	A(mm)	B(mm)	C(mm)	W(mm)
7”x8mm	178±1.0	60±0.5	13.5±0.5	9.5±0.5



PN	Size	W(mm)	P(mm)	Po(mm)	P1(mm)	A0(mm)	B0(mm)	K0(mm)	t(mm)
SFI1608P	1608	8±0.1	4±0.1	4±0.1	2±0.05	1.3±0.1	1.8±0.1	1.1±0.1	0.2±0.05
SCI2012S	2012	8±0.1	4±0.1	4±0.1	2±0.05	1.85±0.1	2.5±0.1	1.7±0.1	0.23±0.05
SFI2012P SFI2012S	2012	8±0.1	4±0.1	4±0.1	2±0.05	1.6±0.1	2.5±0.1	1.25±0.1	0.22±0.05
SFI2520P SCI2520S	2520	8±0.1	4±0.1	4±0.1	2±0.05	2.61±0.1	2.93±0.1	2.25±0.1	0.26±0.05
SCI1608S	1608	8±0.1	4±0.1	4±0.1	2±0.05	1.15±0.1	1.83±0.1	0.95±0.1	0.22±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℃
Humidity : 45 ~ 85%
Atmospheric pressure : 860 ~ 1060 hpa
Tearing Speed: 300Mm/min



◆ Packaging Quantity

Chip Size	1608	2012	2520
8mm / Reel	2K/3K/4K	2K/3K	2K