

## SMD Wire-Wound Ferrite Chip Inductor For Signal 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.

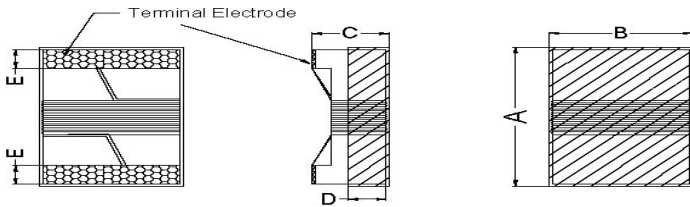
### SFI S-Series

## SFI2520S type

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SFI2520S [1008 inch]

## ◆ SHAPE & DIMENSIONS



SFI2520S	Dimensions
<b>A (mm)</b>	2.92 max
<b>B (mm)</b>	2.79 max
<b>C (mm)</b>	2.20 max
<b>D (mm)</b>	1.20(ref)
<b>E (mm)</b>	0.55±0.10

## ◆ PART NUMBER CONSTRUCTION

SFI	2520	S	-	R27	K	T
Series name	L*W*T Dimensions (mm)	S type Signal Line		Inductance (uH) at 2.52/7.96/25.2MHz	Inductance Tolerance	Taping
SMD Ferrite Inductor	2.92*2.79*2.2			R27	6R8	B = ±0.2nH S = ±0.3nH
				R39	8R2	G = ±2%
				R47	100	J = ±5%
				R56	120	K = ±10%
				R68	150	M = ±20%
				R82	180	
				1R0	220	
				1R2	270	
				1R5	330	
				1R8	390	
				2R2	470	
				2R7	560	
				3R3	680	
				3R9	820	
				4R7	101	
				5R6		

## ◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

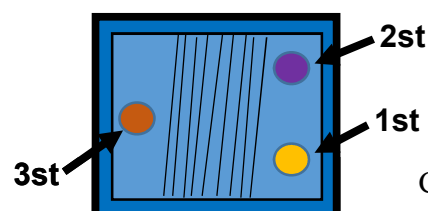
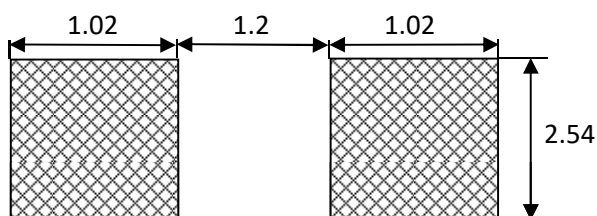
Type	Temperature range		Reel Dimensions (mm)	Package quantity (pieces/reel)
	Operating Temperature °C	Storage Temperature °C		
SFI2520S-Series	-25 to +85	-25 to +85	ø180	2,000

## ◆ ELECTRICAL CHARACTERISTICS

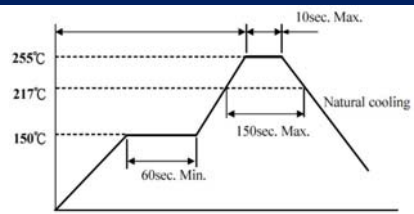
2019/6/6

Inductance ( $\mu$ H)	Inductance Tolerance	Q 25.2MHz min.	DC R ( $\Omega$ ) max.	IDC (mA) max.	SRF (MHz) Min.	Part No.
0.27	J,K	35	0.70	1000	600	SFI2520S-R27□
0.39	J,K	30	0.65	950	550	SFI2520S-R39□
0.47	J,K	30	0.65	900	500	SFI2520S-R47□
0.56	J,K	30	0.70	800	450	SFI2520S-R56□
0.68	J,K	25	0.75	750	400	SFI2520S-R68□
0.82	J,K	25	0.75	700	380	SFI2520S-R82□
Inductance ( $\mu$ H)	Inductance Tolerance	Q 7.96MHz min.	DC R ( $\Omega$ ) max.	IDC (mA) max.	SRF (MHz) Min.	Part No.
1.00	J,K	25	0.80	650	330	SFI2520S-1R0□
1.20	J,K	25	0.87	600	265	SFI2520S-1R2□
1.50	J,K	25	0.98	550	235	SFI2520S-1R5□
1.80	J,K	25	1.10	500	226	SFI2520S-1R8□
2.20	J,K	25	1.22	450	198	SFI2520S-2R2□
2.70	J,K	25	1.33	400	180	SFI2520S-2R7□
3.30	J,K	25	1.46	400	143	SFI2520S-3R3□
3.90	J,K	25	1.63	380	136	SFI2520S-3R9□
4.70	J,K	25	1.76	350	105	SFI2520S-4R7□
5.60	J,K	25	1.79	330	88	SFI2520S-5R6□
6.80	J,K	25	1.97	300	56	SFI2520S-6R8□
8.20	J,K	25	2.03	280	48	SFI2520S-8R2□
10	J,K	25	2.92	250	44	SFI2520S-100□
12	J,K	25	3.11	220	42	SFI2520S-120□
15	J,K	25	3.58	200	37	SFI2520S-150□
Inductance ( $\mu$ H)	Inductance Tolerance	Q 2.52MHz min.	DC R ( $\Omega$ ) max.	IDC (mA) max.	SRF (MHz) Min.	Part No.
18	J,K	20	3.89	180	32	SFI2520S-180□
22	J,K	20	4.38	140	28	SFI2520S-220□
27	J,K	20	4.92	130	24	SFI2520S-270□
33	J,K	20	5.50	125	22	SFI2520S-330□
39	J,K	20	7.51	110	20	SFI2520S-390□
47	J,K	20	8.34	100	18	SFI2520S-470□
56	J,K	20	9.18	95	16	SFI2520S-560□
68	J,K	20	9.61	90	14	SFI2520S-680□
82	J,K	20	11.54	80	12	SFI2520S-820□
100	J,K	20	13	60	8	SFI2520S-101□

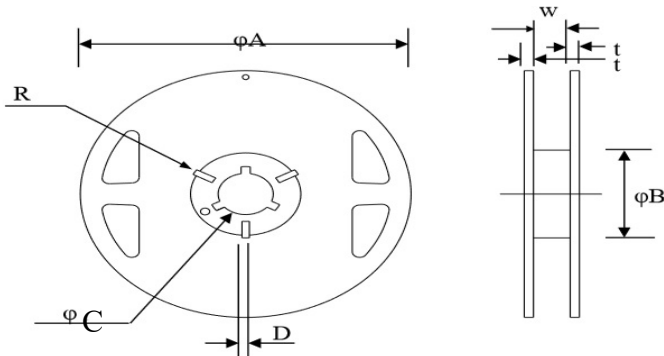
## ◆ Recommended Soldering Conditions (Please use this product by reflow soldering)



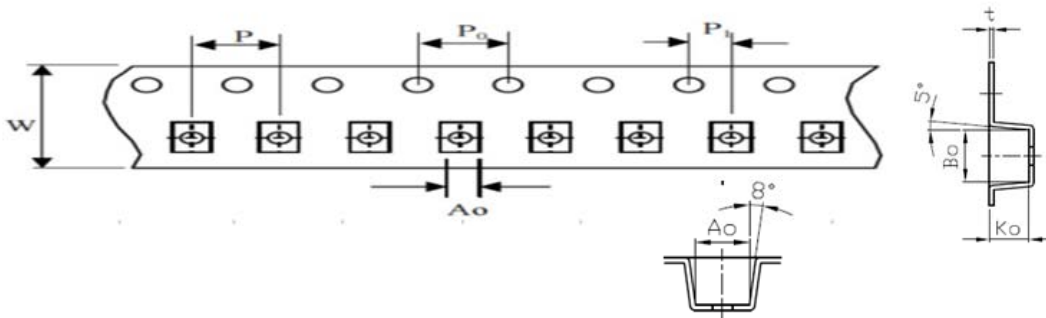
Color Coding

Soldering & Mounting Recommended Reflow Pattern Reflow : until two times			
Solder Heat Resistance	Appearance: NO significant abnormality.	Preheat: 150°C, 60sec.	
	Inductance change: Within+/-20%.	Solder temperature: 260±5°C Flux for lead : rosin Dip time: 10±0.5sec	
Solder ability Test	More than 90% of the terminal electrode	Preheat: 150°C, 60sec.	
	Should be covered with solder.	Solder temperature: 230±5°C Flux for lead : rosin Dip time: 4±1sec	
Reliability Test			
High Temperature Life Test	Appearance: no damage.	Temperature: 85±5°C.	
	Inductance: within+/-20% of initial value.  No disconnection or short circuit.	Duration: 500±12hrs Measured at room temperature after placing for 2 to 3hrs.	
Low Temperature Life Test	Appearance: no damage	Temperature: -40±5°C.	
	Inductance: within+/-20% of initial value.  No disconnection or short circuit.	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	Within 3
	3	+85±3°C	30±3
	4	常溫	Within 3
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	Humidity: 90-95%RH Temperature: 60±5°C	
	Inductance: within+/-20% of initial value.  No disconnection or short circuit.	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	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	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

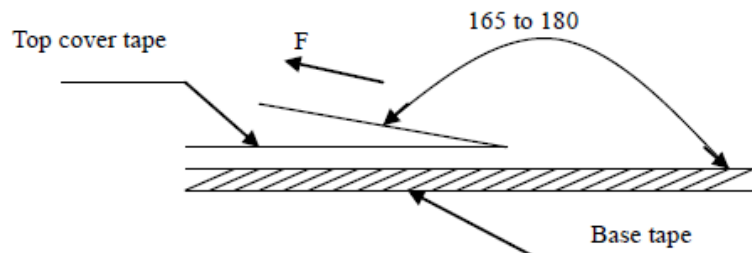
The force for tearing off cover tape is 15 to 60 grams in the arrow direction at the following conditions:

Temperature : 5 ~ 35°C

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