

## 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.

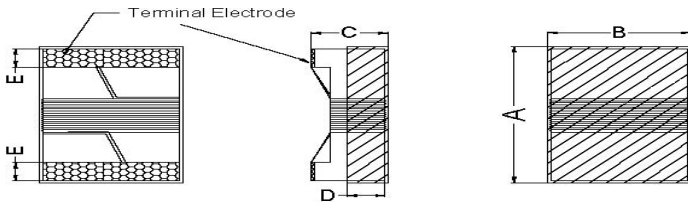
### SFI P-Series

## SFI2520P type

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SFI2520P [1008 inch]

## ◆ SHAPE & DIMENSIONS



SFI2520P	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	P	—	1R0	K	T
Series name	L*W*T Dimensions (mm)	P type Power Line		Inductance (uH) at 2.5/7.9/25MHz	Inductance Tolerance	Taping
SMD Ferrite Inductor	2.9*2.7*2.2			1R0    1R5	B = ±0.2nH	
				1R8    2R2	S = ±0.3nH	
				2R7    3R3	G = ±2%	
				3R6    4R7	J = ±5%	
					K = ±10%	
					M = ±20%	
				5R6    6R8		
				8R2    100		
				150    220		
				330    R27		

## ◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

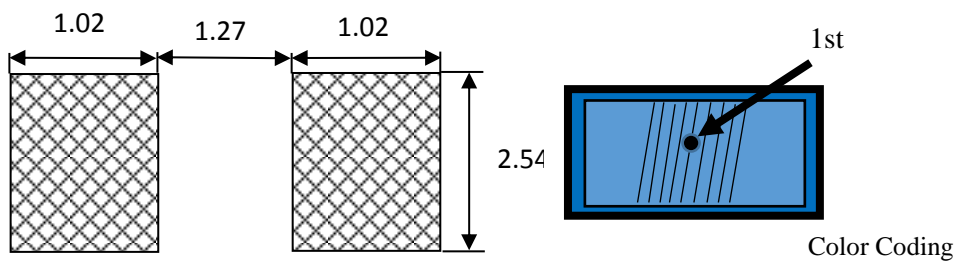
Type	Temperature range		Reel Dimensions (mm)	Package quantity (pieces/reel)
	Operating Temperature °C	Storage Temperature °C		
SFI2520P-Series	-25 to +85	-25 to +85	ø180	3,000

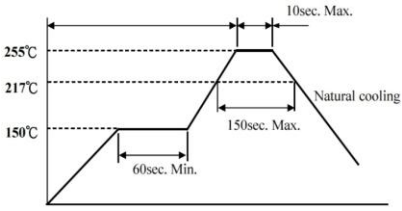
## ◆ ELECTRICAL CHARACTERISTICS

Inductance 7.9MHz (uH)	Inductance Tolerance	Q 7.9MHz min.	DC R ( $\Omega$ ) max.	IDC (mA) max.	SRF (MHz) Min.	Part No.
1.0	K,M	12	0.15	1000	345	SFI2520P-1R0□
1.5	K,M	12	0.17	850	100	SFI2520P-1R5□
1.8	K,M	12	0.21	800	85	SFI2520P-1R8□
2.2	K,M	12	0.21	775	78	SFI2520P-2R2□
2.7	K,M	12	0.26	730	58	SFI2520P-2R7□
3.3	K,M	12	0.26	715	48	SFI2520P-3R3□
3.6	K,M	12	0.47	600	47	SFI2520P-3R6□
4.7	K,M	12	0.52	505	46	SFI2520P-4R7□
5.6	K,M	12	0.65	450	40	SFI2520P-5R6□
6.8	K,M	12	0.72	432	33	SFI2520P-6R8□

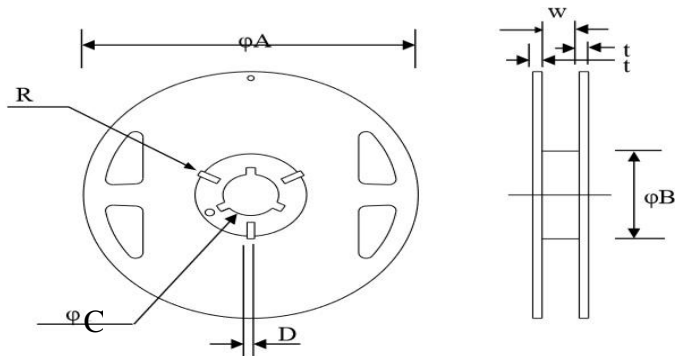
Inductance 2.5MHz (uH)	Inductance Tolerance	Q 2.5MHz min.	DC R ( $\Omega$ ) max.	IDC (mA) max.	SRF (MHz) Min.	Part No.
8.2	K,M	12	0.76	410	30	SFI2520P-8R2□
10	K,M	12	1	392	28	SFI2520P-100□
15	K,M	12	1.8	342	21	SFI2520P-150□
22	K,M	12	1.96	260	18	SFI2520P-220□
33	K,M	12	2.47	236	15	SFI2520P-330□

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

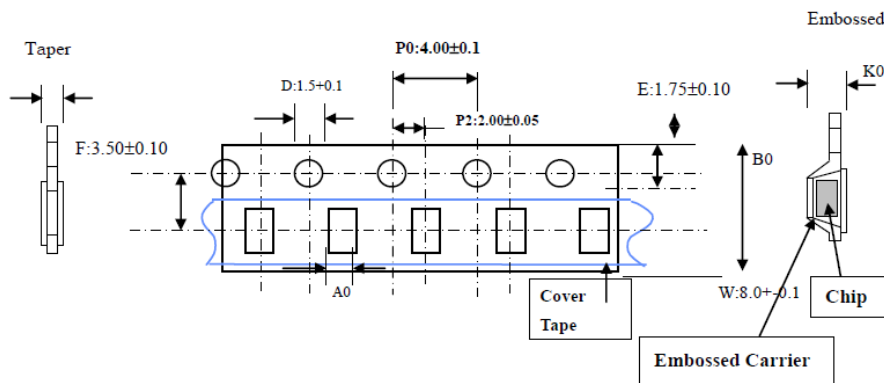


<b>Soldering &amp; Mounting</b> <b>Recommended Reflow Pattern</b> Reflow : until two times			
Solder Heat Resistance	Appearance: NO significant abnormality.	Preheat: 150°C, 60sec.	
	Inductance change: Within $\pm 20\%$ .	Solder temperature: 260 $\pm 5$ °C Flux for lead : rosin Dip time: 10 $\pm 0.5$ sec	
Solder ability Test	More than 90% of the terminal electrode	Preheat: 150°C, 60sec.	
	Should be covered with solder.	Solder temperature: 230 $\pm 5$ °C Flux for lead : rosin Dip time: 4 $\pm 1$ sec	
<b>Reliability Test</b>			
High Temperature Life Test	Appearance: no damage.	Temperature: 85 $\pm 5$ °C.	
	Inductance: within $\pm 20\%$ of initial value.  No disconnection or short circuit.	Duration: 500 $\pm 12$ hrs Measured at room temperature after placing for 2 to 3hrs.	
Low Temperature Life Test	Appearance: no damage	Temperature: -40 $\pm 5$ °C.	
	Inductance: within $\pm 20\%$ of initial value.  No disconnection or short circuit.	Duration: 500 $\pm 12$ hrs 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 $\pm 3$ °C	30 $\pm 3$
	2	常溫	Within 3
	3	+85 $\pm 33$ °C	30 $\pm 3$
	4	常溫	Within 3
測試性能同上			Condition for 1 cycle Step1: -40 $\pm 3$ °C 30 $\pm 3$ min. Step2: Room Temperature within 3min. Step3: +85 $\pm 33$ °C 30 $\pm 3$ min 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 $\pm 5$ °C	
	Inductance: within $\pm 20\%$ of initial value.  No disconnection or short circuit.	Applied current: Rated current. Duration: 500 $\pm 12$ hrs. 放置時間: 500 $\pm 12$ hrs 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

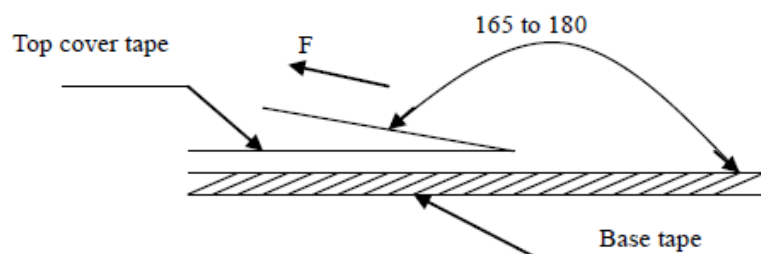
The force for tearing off cover tape is 15 to 60 grams in the arrow direction at the following conditions:

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