

SMD Wire-Wound Ferrite Chip Inductor For Signal Line

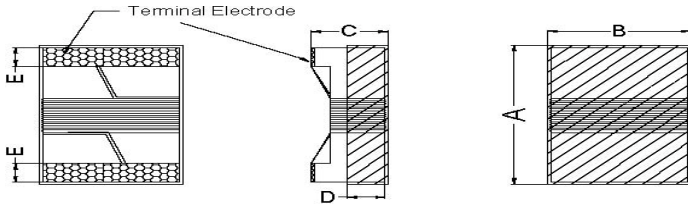
Wire wound ferrite chip inductor offers the overall combination of low cost, close tolerance, better Q factor and high self-resonant multiplayer chip inductor.

SFI S-Series

SFI2520S type

SFI2520S [1008 inch]

◆ SHAPE & DIMENSIONS



SFI2520S	Dimensions
A (mm)	2.92 max
B (mm)	2.79 max
C (mm)	2.20 max
D (mm)	1.20(ref)
E (mm)	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 2.5/7.9/25MHz		Inductance Tolerance	Taping		
SMD Ferrite Inductor	2.9*2.7*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					

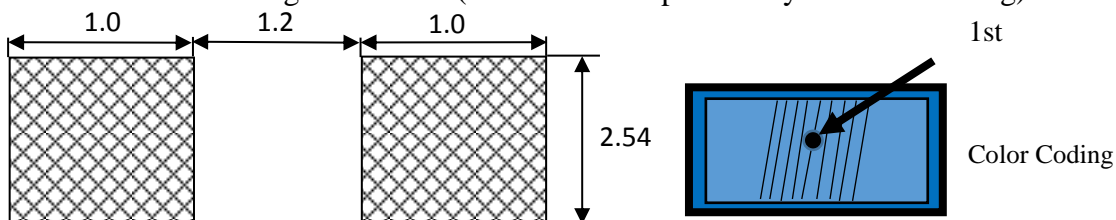
◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

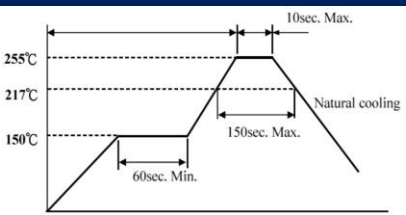
Type	Temperature range		Reel Dimensions (mm)	Package quantity (pieces/reel)
	Operating Temperature ℃	Storage Temperature ℃		
SFI2520S-Series	-25 to +85	-25 to +85	ø180	3,000

◆ ELECTRICAL CHARACTERISTICS

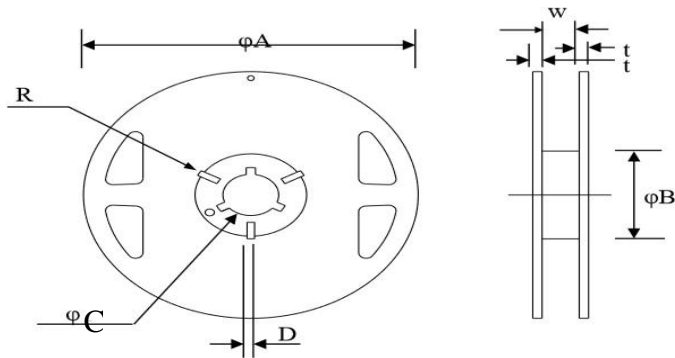
Inductance 25MHz (uH)	Inductance Tolerance	Q 25MHz min.	DC R (Ω) max.	IDC (mA) max.	SRF (MHz) Min.	Part No.
0.27	J,K	35	0.70	1000	600	SFI2520S-R27□
0.39	J,K	30	0.65	950	550	SFI2520S-R39□
0.47	J,K	30	0.65	900	500	SFI2520S-R47□
0.56	J,K	30	0.70	800	450	SFI2520S-R56□
0.68	J,K	25	0.75	750	400	SFI2520S-R68□
0.82	J,K	25	0.75	700	380	SFI2520S-R82□
Inductance 7.9MHz (uH)	Inductance Tolerance	Q 7.9MHz min.	DC R (Ω) 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 2.5MHz (uH)	Inductance Tolerance	Q 2.5MHz min.	DC R (Ω) 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)

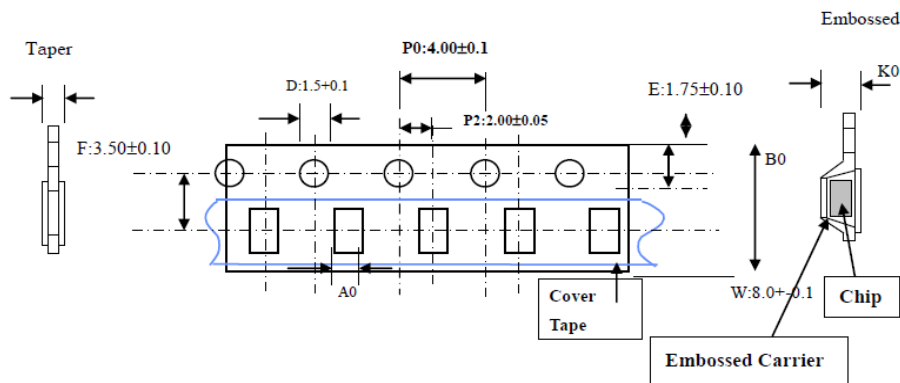


Soldering & Mounting Recommended Reflow Pattern Reflow : until two times			
Solder Heat Resistance	Appearance: NO significant abnormality.	Preheat: 150°C, 60sec.	
	Inductance change: Within $\pm 20\%$.	Solder temperature: $260 \pm 5^\circ\text{C}$ Flux for lead : rosin Dip time: $10 \pm 0.5\text{sec}$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

◆ 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

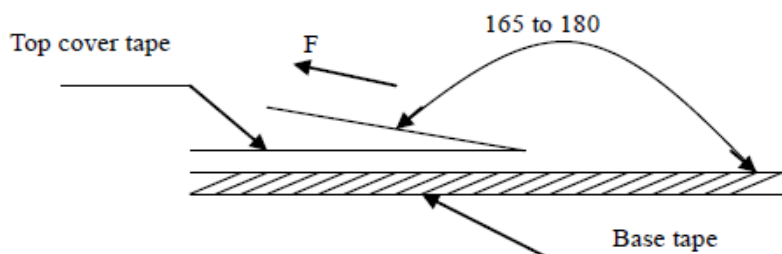
The force for tearing off cover tape is 15 to 60 grams in the arrow direction at the following conditions:

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