

Features & Application

- Higher Q and lower DCR than other 0603 inductors
- Very high SRF values – as high as 6.x GHz
- Excellent current handling capability – up to 700 mA
- 50 inductance values from 1.6 to 560 nH



Core material Ceramic

Environmental RoHS compliant, halogen free

Terminations Silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Ambient temperature -40°C to +125°C with Irms current

Maximum part temperature +140°C (ambient + temp rise).

Storage temperature Component: -40°C to +140°C. Tape and reel packaging: -40°C to

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +25 to +125 ppm/°C

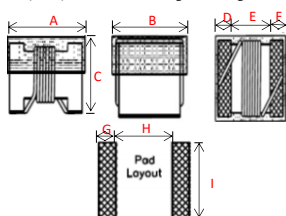
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C /

85% relative humidity)

★ When ordering, please check part number

Part number	Inductance 250MHz (nH)	Inductance Tolerance	Q		RDC (Ω) Max	IRMS (mA)	SRF (GHz) Min.
			min	MHz			
SCI1608S-1N6	1.6	B,S	24	250	0.03	700	>6.0
SCI1608S-1N8	1.8	B,S	16	250	0.05	700	>6.0
SCI1608S-2N0	2.0	B,S	13	250	0.07	700	>6.0
SCI1608S-2N2	2.2	B,S	13	250	0.07	700	>6.0
SCI1608S-3N3	3.3	B,S	20	250	0.05	700	>6.0
SCI1608S-3N6	3.6	B,S,J	22	250	0.06	700	>6.0
SCI1608S-3N9	3.9	B,S,J	22	250	0.07	700	>6.0
SCI1608S-4N3	4.3	B,S,J	22	250	0.06	700	5.90
SCI1608S-4N7	4.7	B,S,J	20	250	0.12	700	5.80
SCI1608S-5N1	5.1	B,S,J	20	250	0.14	700	5.70
SCI1608S-5N6	5.6	B,S,J	20	250	0.12	700	5.80
SCI1608S-6N2	6.2	B,J,K	27	250	0.11	700	5.80
SCI1608S-6N8	6.8	B,J,K	27	250	0.11	700	5.80
SCI1608S-7N5	7.5	B,J,K	28	250	0.12	700	4.80
SCI1608S-8N2	8	B,J,K	30	250	0.12	700	4.70
SCI1608S-8N7	8.7	B,J,K	28	250	0.11	700	4.60
SCI1608S-9N5	9.5	B,J,K	28	250	0.14	700	5.40
SCI1608S-10N	10	G,J,K	31	250	0.13	700	4.80
SCI1608S-11N	11	G,J,K	30	250	0.13	700	4.00
SCI1608S-12N	12	G,J,K	35	250	0.13	700	4.00
SCI1608S-15N	15	G,J,K	35	250	0.13	700	4.00
SCI1608S-16N	16	G,J,K	34	250	0.13	700	3.30
SCI1608S-18N	18	G,J,K	35	250	0.17	700	3.10
SCI1608S-22N	22	G,J,K	38	250	0.19	700	3.00
SCI1608S-24N	24	G,J,K	38	250	0.19	700	3.00
SCI1608S-27N	27	G,J,K	40	250	0.22	600	2.80
SCI1608S-30N	30	G,J,K	37	250	0.22	600	2.25
SCI1608S-33N	33	G,J,K	40	250	0.22	600	2.30
SCI1608S-36N	36	G,J,K	37	250	0.25	600	2.08
SCI1608S-39N	39	G,J,K	40	250	0.25	600	2.20
SCI1608S-43N	43	G,J,K	38	250	0.28	600	2.00
Part No.	Inductance 200MHz (nH)	Inductance Tolerance	Q		RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI1608S-47N	47	G,J,K	38	250	0.28	600	2.00
SCI1608S-51N	51	G,J,K	35	250	0.31	600	1.90
SCI1608S-56N	56	G,J,K	38	250	0.31	600	1.90
SCI1608S-68N	68	G,J,K	37	250	0.34	600	1.70
Part No.	Inductance 150MHz (nH)	Inductance Tolerance	Q		RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI1608S-72N	72	G,J,K	34	250	0.49	400	1.7
SCI1608S-82N	82	G,J,K	34	250	0.54	400	1.7
SCI1608S-R10	100	G,J,K	34	250	0.68	400	1.4
SCI1608S-R11	110	G,J,K	32	250	0.65	300	1.35
SCI1608S-R12	120	G,J,K	32	250	0.75	300	1.3
SCI1608S-R15	150	G,J,K	28	250	1.20	280	0.99
Part No.	Inductance 100MHz (nH)	Inductance Tolerance	Q		RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI1608S-R18	180	G,J,K	25	250	1.52	240	0.99
SCI1608S-R20	200	G,J,K	25	250	1.98	200	0.90
SCI1608S-R22	220	G,J,K	25	250	2.02	200	0.90
SCI1608S-R25	250	G,J,K	25	250	2.20	120	0.88
SCI1608S-R27	270	G,J,K	24	250	2.36	170	0.90
SCI1608S-R33	330	G,J,K	25	250	3.20	100	0.90
SCI1608S-R39	390	G,J,K	25	250	3.60	100	0.70
Part No.	Inductance 50MHz (nH)	Inductance Tolerance	Q		RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI1608S-R47	470	G,J,K	20	100	3.60	90	0.30
Part No.	Inductance 25MHz (nH)	Inductance Tolerance	Q		RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI1608S-R56	560	G,J,K	12	50	4.00	80	0.150

Isolation (Vrms) : 250V. Winding to winding isolation (hipot) tested for one min



Dimensions

A	1.80 MAX
B	1.20 MAX
C	1.02 MAX
D	0.45 ± 0.1
E	1.19 TYP
F	0.45 ± 0.1
G	1.02 TYP
H	0.76 TYP
I	1.78 TYP
unit : mm	

Impedance/Inductance/Q/ LCR Angilent E4991A

Resistance DC Chroma 16502

Current per winding that causes a 20°C rise from 25°C ambient

Electrical specifications at 25°C

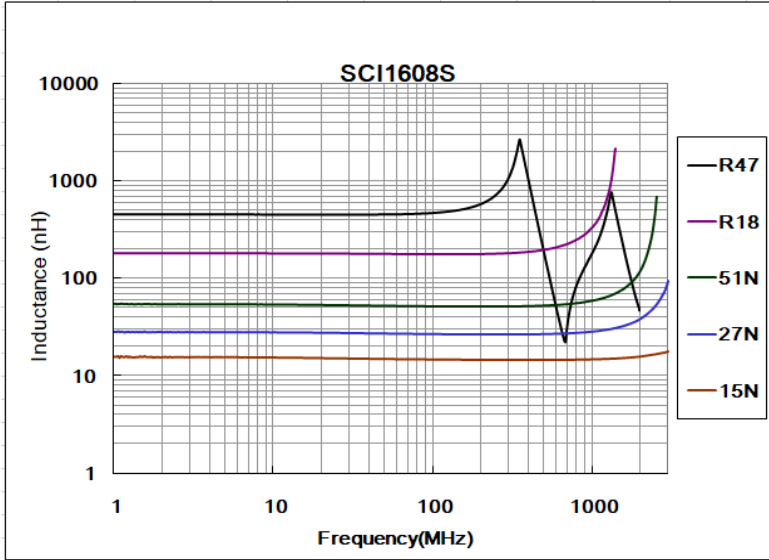
Weight 4.2 – 7.3 mg.

Packaging 2000/7 # reel; Plastic tape: 8 mm wide.

Packaging will differ according to the various chip size.

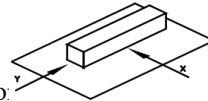
Contact Us	
US	sales-us@bing-ri.com.tw
Taiwan	sales-tw@bing-ri.com.tw
China	sales-cn@bing-ri.com.tw
Japan	sales-jp@bing-ri.com.tw
Official Website :	
https://www.bing-ri.com.tw/	

Typical Inductance vs Frequency



GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO $+125^{\circ}\text{C}$ (Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Y withstanding at below conditions.
Terminal should not peel off. (refer to figure at right) 0.5kg Min -1608
4. Insulating resistance: Over $100\text{M}\Omega$ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core
6. Temperature characteristics: Inductance coefficient $(0\sim 2,000)\times 10^{-6}/(^{\circ}\text{C} -25\sim +80)$. $^{\circ}\text{C}$, inductance deviation within $\pm 5.0\%$, after 96 hours.
7. Humidity characteristics (Moisture Resistance): Inductance deviation within $\pm 5\%$, after 96 hours in 90~95% relative humidity at 40 ± 2 and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within $\pm 5\%$, after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within $\pm 5\%$, after being dropped once with 981m/s² (100G) shock attitude upon a rubber block method shock testing machine, in three different
10. Resistance to Soldering Heat: 260 , 10 seconds (See attached recommend reflow)
11. Storage environment: Storage condition: Temperature Range: 10 ~ 35 (Generally: 21 ~ 31) , Humidity Range: 50% ~ 80% RH (Generally: 65% ~ 75%) ; Transportation condition: Temperature Range: -35 ~ 85 , Humidity Range: 50% ~ 95% RH
12. Use components within 12 months. If 12 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:



Lead-free heat endurance test

Lead-free the recommended reflow condition

