

## Features &amp; Application

- Higher Q and lower DCR than other 0805 inductors
- Very high SRF values – as high as 6.x GHz
- Excellent current handling capability – up to 800 mA
- 56 inductance values from 2.0 to 2400 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 1rms current

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

Storage temperature Component: -40°C to +140°C. Tape and reel packaging: -40°C to +125°C

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

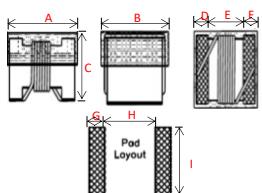
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at &lt;30°C / 85% relative humidity)

★ When ordering, please check part number



Part number	Inductance 250MHz (nH)	Inductance Tolerance	Q min MHz	RDC (Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI2012S-2N0□T	2.0	B,S	45 1500	0.03	800	>6.0
SCI2012S-2N2□T	2.2	B,S	45 1500	0.07	750	>6.0
SCI2012S-2N5□T	2.5	B,S	45 1500	0.03	700	>6.0
SCI2012S-2N8□T	2.8	B,S	45 1500	0.06	700	>6.0
SCI2012S-3N0□T	3.0	B,S	30 1500	0.06	800	>6.0
SCI2012S-3N3□T	3.3	B,S	30 1500	0.12	600	>6.0
SCI2012S-3N9□T	3.9	B,S	70 1500	0.04	800	5.75
SCI2012S-4N7□T	4.7	B,J,K	70 1500	0.04	800	5.50
SCI2012S-5N6□T	5.6	B,J,K	55 1000	0.08	600	5.50
SCI2012S-6N8□T	6.8	B,J,K	50 1000	0.11	600	5.50
SCI2012S-7N5□T	7.5	B,J,K	50 1000	0.14	600	4.80
SCI2012S-8N2□T	8.2	B,J,K	50 1000	0.12	600	4.40
SCI2012S-9N1□T	9.1	B,J,K	65 1000	0.08	600	4.40
SCI2012S-10N□T	10	G,J,K	50 500	0.10	600	4.30
SCI2012S-12N□T	12	G,J,K	50 500	0.15	600	4.00
SCI2012S-15N□T	15	G,J,K	50 500	0.17	600	3.40
SCI2012S-16N□T	16	G,J,K	50 500	0.17	600	3.30
SCI2012S-18N□T	18	G,J,K	50 500	0.20	600	2.60
SCI2012S-22N□T	22	G,J,K	55 500	0.22	500	2.60
SCI2012S-24N□T	24	G,J,K	50 500	0.22	500	2.00
SCI2012S-27N□T	27	G,J,K	55 500	0.25	500	2.50
SCI2012S-33N□T	33	G,J,K	60 500	0.27	500	2.10
SCI2012S-36N□T	36	G,J,K	55 500	0.27	500	1.90
SCI2012S-39N□T	39	G,J,K	60 500	0.29	500	2.00
Part No.	Inductance 200MHz (nH)	Inductance Tolerance	Q min MHz	RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI2012S-43N□T	43	G,J,K	60 500	0.34	500	1.65
SCI2012S-47N□T	47	G,J,K	60 500	0.31	500	1.65
SCI2012S-56N□T	56	G,J,K	60 500	0.34	500	1.55
SCI2012S-68N□T	68	G,J,K	60 500	0.38	500	1.50
Part No.	Inductance 150MHz (nH)	Inductance Tolerance	Q min MHz	RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI2012S-82N□T	82	G,J,K	65 500	0.42	400	1.33
SCI2012S-91N□T	91	G,J,K	55 500	0.48	400	1.25
SCI2012S-R10□T	100	G,J,K	65 500	0.46	400	1.20
SCI2012S-R11□T	110	G,J,K	50 250	0.48	400	1.10
SCI2012S-R12□T	120	G,J,K	50 250	0.51	400	1.10
Part No.	Inductance 100MHz (nH)	Inductance Tolerance	Q min MHz	RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI2012S-R15□T	150	G,J,K	50 250	0.56	400	0.92
SCI2012S-R18□T	180	G,J,K	50 250	0.64	400	0.92
SCI2012S-R22□T	220	G,J,K	50 250	1.10	400	0.85
SCI2012S-R24□T	240	G,J,K	44 250	1.00	350	0.71
SCI2012S-R27□T	270	G,J,K	48 250	1.30	350	0.68
SCI2012S-R29□T	290	G,J,K	48 250	1.30	330	0.66
SCI2012S-R33□T	330	G,J,K	48 250	1.40	310	0.65
SCI2012S-R39□T	390	G,J,K	48 250	1.50	290	0.56
Part No.	Inductance 50MHz (nH)	Inductance Tolerance	Q min MHz	RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI2012S-R47□T	470	G,J,K	33 100	1.76	250	0.38
Part No.	Inductance 25MHz (nH)	Inductance Tolerance	Q min MHz	RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI2012S-R56□T	560	G,J,K	23 50	2.50	230	0.35
SCI2012S-R62□T	620	G,J,K	23 50	2.20	210	0.33
SCI2012S-R68□T	680	G,J,K	23 50	2.05	190	0.30
SCI2012S-R75□T	750	G,J,K	23 50	2.25	180	0.28
SCI2012S-R82□T	820	G,J,K	23 50	2.35	180	0.25
SCI2012S-R91□T	910	G,J,K	23 50	2.45	170	0.23
SCI2012S-R10□T	1000	G,J,K	23 50	2.50	170	0.20
Part No.	Inductance 7.96MHz (nH)	Inductance Tolerance	Q min MHz	RDC(Ω) Max	IRMS (mA)	SRF (GHz) Min.
SCI2012S-R12□T	1200	G,J,K	25 50	3.00	160	0.195
SCI2012S-R15□T	1500	G,J,K	25 50	3.80	150	0.180
SCI2012S-R18□T	1800	G,J,K	22 50	5.00	140	0.165
SCI2012S-R20□T	2000	G,J,K	22 50	6.00	130	0.145
SCI2012S-R22□T	2200	G,J,K	24 50	6.50	130	0.140
SCI2012S-R4□T	2400	G,J,K	23 50	6.60	120	0.130

Isolation (VRms) : 250V. Winding to winding isolation (hipot) tested for one minute.



Dimensions	
A	2.19 MAX
B	1.73 MAX
C	1.52 MAX
D	0.55 TYP
E	1.09 TYP
F	0.55 TYP
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

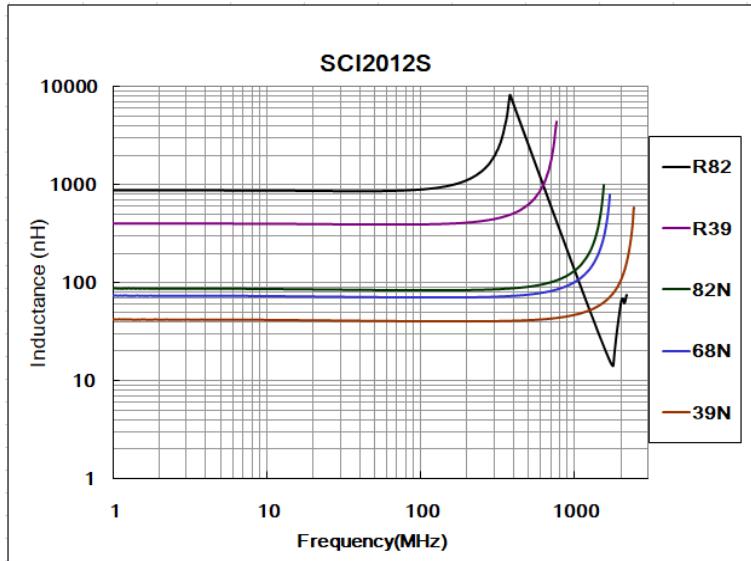
Weight 5.3 – 13.7 mg.

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

Packaging will different according the various chip size.

Contact Us
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Japan sales-jp@bing-ri.com.tw
Official Website : <a href="https://www.bing-ri.com.tw/">https://www.bing-ri.com.tw/</a>

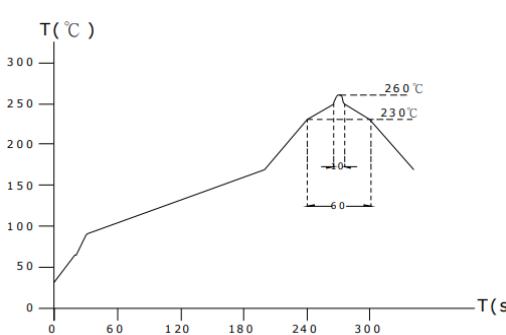
## Typical Inductance vs Frequency



## GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO +125°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.Ywithstanding at below conditions.  
Terminal should not peel off. (refer to figure at right) 0.5kg Min -2012
4. Insulating resistance: Over 100MΩ 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  $(0\sim 2,000)\times 10^{-6}$  / ( °C -25~+80 ). °C , inductance deviation within±5.0%, after 96 hours.
7. Humidity characteristics(Moisture Resistance): Inductance deviation within ±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 ±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 ±5%, after being dropped once with 981m/s<sup>2</sup> (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

