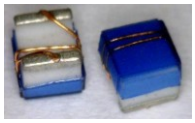
Chip Inductors - 1005S-Series (0402)

BINGRI TECH

Features & Application

2020/1/1

- Higher Q and lower DCR than other 0402 inductors
- Very high SRF values – as high as 12 GHz
- Excellent current handling capability – up to 2300 mA
- 50 inductance values from 1.0 to 120 nH



Core material Ceramic

Environmental RoHS compliant, halogen free

Terminations Silver-palladium-platinum-glass frit. Other ter
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°

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

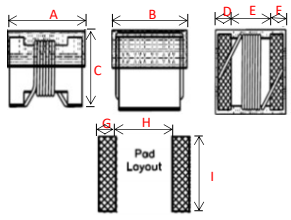
Temperature Coefficient of Inductance (TCL) +25 to +125 ppm/°C

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 250MHz Min.	RDC (Ω) Max	IRMS (mA)	SRF (GHz)
SCI1005S-1N0□T	1.0	J/K	16	0.045	1360	12.70
SCI1005S-1N2□T	1.2	J/K	16	0.09	740	12.90
SCI1005S-1N8□T	1.8	J/K	16	0.07	1040	12.00
SCI1005S-1N9□T	1.9	J/K	16	0.07	1040	11.30
SCI1005S-2N0□T	2.0	H/J/K	16	0.07	1040	11.10
SCI1005S-2N2□T	2.2	H/J/K	19	0.07	960	10.80
SCI1005S-2N4□T	2.4	H/J/K	15	0.068	790	10.50
SCI1005S-2N7□T	2.7	H/J/K	16	0.12	640	10.40
SCI1005S-3N3□T	3.3	H/J/K	19	0.066	840	7.00
SCI1005S-3N6□T	3.6	H/J/K	19	0.066	840	6.80
SCI1005S-3N9□T	3.9	H/J/K	19	0.066	840	6.00
SCI1005S-4N3□T	4.3	H/J/K	18	0.091	700	6.00
SCI1005S-4N7□T	4.7	H/J/K	15	0.13	640	4.77
SCI1005S-5N1□T	5.1	H/J/K	20	0.083	800	4.80
SCI1005S-5N6□T	5.6	H/J/K	20	0.083	760	4.80
SCI1005S-6N2□T	6.2	H/J/K	20	0.083	760	4.80
SCI1005S-6N8□T	6.8	H/J/K	20	0.08	680	4.80
SCI1005S-7N3□T	7.3	H/J/K	20	0.26	680	4.80
SCI1005S-7N5□T	7.5	H/J/K	22	0.10	680	4.80
SCI1005S-8N2□T	8.2	H/J/K	22	0.10	680	4.40
SCI1005S-8N7□T	8.7	H/J/K	18	0.20	480	4.10
SCI1005S-9N0□T	9.0	H/J/K	22	0.10	680	4.16
SCI1005S-9N1□T	9.1	H/J/K	22	0.10	680	4.16
SCI1005S-9N5□T	9.5	H/J/K	18	0.20	480	4.00
SCI1005S-10N□T	10	H/J/K	21	0.20	480	3.90
SCI1005S-11N□T	11	H/J/K	24	0.12	640	3.68
SCI1005S-12N□T	12	G/J/K	24	0.12	640	3.60
SCI1005S-13N□T	13	G/J/K	24	0.21	440	3.45
SCI1005S-15N□T	15	G/J/K	24	0.17	560	3.28
SCI1005S-16N□T	16	G/J/K	24	0.22	560	3.10
SCI1005S-18N□T	18	G/J/K	25	0.23	420	3.10
SCI1005S-19N□T	19	G/J/K	24	0.20	480	3.04
SCI1005S-20N□T	20	G/J/K	25	0.25	420	3.00
SCI1005S-22N□T	22	G/J/K	25	0.30	400	2.80
SCI1005S-23N□T	23	G/J/K	22	0.30	400	2.72
SCI1005S-24N□T	24	G/J/K	25	0.30	400	2.70
SCI1005S-27N□T	27	G/J/K	24	0.30	400	2.48
SCI1005S-30N□T	30	G/J/K	25	0.30	400	2.35
SCI1005S-33N□T	33	G/J/K	24	0.44	400	2.35
SCI1005S-36N□T	36	G/J/K	24	0.44	320	2.32
SCI1005S-39N□T	39	G/J/K	25	0.55	200	2.10
SCI1005S-40N□T	40	G/J/K	24	0.44	320	2.24
SCI1005S-43N□T	43	G/J/K	25	0.81	100	2.03
SCI1005S-47N□T	47	G/J/K	20	0.83	150	2.10
SCI1005S-51N□T	51	G/J/K	25	0.82	100	1.75
SCI1005S-56N□T	56	G/J/K	22	0.97	100	1.76
SCI1005S-68N□T	68	G/J/K	22	1.12	100	1.62
SCI1005S-82N□T	82	G/J/K	20	1.55	50	1.23
SCI1005S-R10□T	100	G/J/K	20	2.0	30	1.16
SCI1005S-R12□T	120	J/K	20	2.2	50	1.10

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



Dimensions	
A	1.19 MAX
B	0.64 MAX
C	0.66 MAX
D	0.23 TYP
E	0.56 TYP
F	0.23 TYP
G	0.36 TYP
H	0.460 TYP
I	0.66 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 amb

Electrical specifications at 25°C

Weight 0.6 – 1.2 mg.

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

Packaging will different,accroding the various chip size.

Contact Us	
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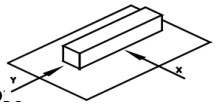
Official Website :
https://www.bing-ri.com.tw/

GENERAL CHARACTERISTICS

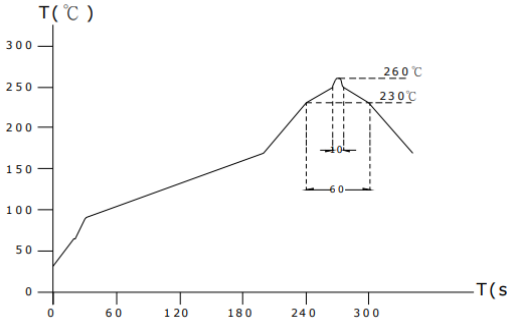
1. Operating temperature range: -40 TO + 125℃(Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has no external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil. Push in two directions of X.Ywithstanding at below conditions.

Terminal should not peel off. (refer to figure at right) 0.5kg Min –1005



4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and co
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core
6. Temperature characteristics: Inductance coefficient (0~2,000)x10-6/ (℃ -25~+80). ℃ , 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/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 soldarability before use.
13. Reflow profile recommend:

Lead-free heat en duran ce test



Lead-free the recommended reflow condition