Overview Of SCI1005S Series

BINGRI

2020/5/14

SMD Wire-Wound Ceramic Chip Inductor For Signal Line

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

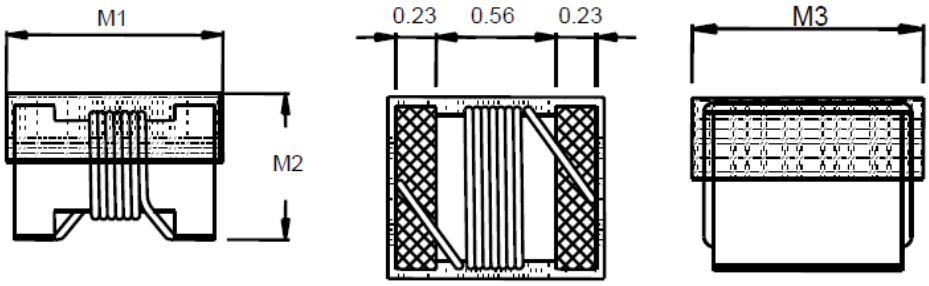
SCI S-Series

SCI1005S type

SCI1005S	[0402 inch]

◆ SHAPE & DIMENSIONS

UNIT:mm



M1	M2	M3
1.19(MAX)	0.66(MAX)	0.64(MAX)

◆ PART NUMBER CONSTRUCTION

SCI	1005	S	—	1N0	K	T
Series name	L*W*T Dimensions (mm)	S type Signal Line		Inductance (nH) at 250MHz	Inductance Tolerance	Taping
SMD Ceramic Inductor	1.0*0.5*0.66			1N0 => 1.0 nH	J = ±5% K = ±10% H = ±3% G = ±2%	

◆ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY.

Type	Temperature range		Reel Dimensions (mm)	Package quantity (pieces/reel)
	Operating Temperature ℃	Storage Temperature ℃		
SCI1005S-Series	–40 to +125	–25 to +85	ø180	4,000

◆ ELECTRICAL CHARACTERISTICS

2020/5/14

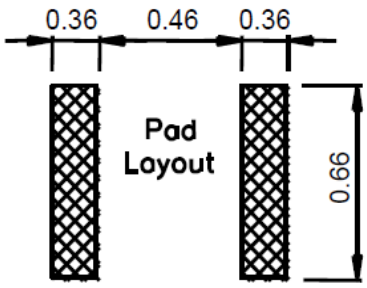
Inductance 250MHz (nH)	Inductance Tolerance	Q 250MHz Min.	RDC (Ω) Max	IDC (mA) max.	SRF (GHz) Min.	Part No.
1.0	J、K	16	0.045	1360	12.7	SCI1005S-1N0□
1.2	J、K	16	0.09	740	12.9	SCI1005S-1N2□
1.8	J、K	16	0.07	1040	12	SCI1005S-1N8□
1.9	J、K	16	0.07	1040	11.3	SCI1005S-1N9□
2.0	H、J、K	16	0.07	1040	11.1	SCI1005S-2N0□
2.2	H、J、K	19	0.07	960	10.8	SCI1005S-2N2□
2.4	H、J、K	15	0.068	790	10.5	SCI1005S-2N4□
2.7	H、J、K	16	0.12	640	10.4	SCI1005S-2N7□
3.3	H、J、K	19	0.066	840	7	SCI1005S-3N3□
3.6	H、J、K	19	0.066	840	6.8	SCI1005S-3N6□
3.9	H、J、K	19	0.066	840	6	SCI1005S-3N9□
4.3	H、J、K	18	0.091	700	6	SCI1005S-4N3□
4.7	H、J、K	15	0.13	640	4.77	SCI1005S-4N7□
5.1	H、J、K	20	0.083	800	4.8	SCI1005S-5N1□
5.6	H、J、K	20	0.083	760	4.8	SCI1005S-5N6□
6.2	H、J、K	20	0.083	760	4.8	SCI1005S-6N2□
6.8	H、J、K	20	0.08	680	4.8	SCI1005S-6N8□
7.3	H、J、K	20	0.26	680	4.8	SCI1005S-7N3□
7.5	H、J、K	22	0.1	680	4.8	SCI1005S-7N5□
8.2	H、J、K	22	0.1	680	4.4	SCI1005S-8N2□
8.7	H、J、K	18	0.2	480	4.1	SCI1005S-8N7□
9.0	H、J、K	22	0.1	680	4.16	SCI1005S-9N0□
9.1	H、J、K	22	0.1	680	4.16	SCI1005S-9N1□
9.5	H、J、K	18	0.2	480	4	SCI1005S-9N5□
10	H、J、K	21	0.2	480	3.9	SCI1005S-10N□
11	H、J、K	24	0.12	640	3.68	SCI1005S-11N□
12	G、J、K	24	0.12	640	3.6	SCI1005S-12N□
13	G、J、K	24	0.21	440	3.45	SCI1005S-13N□
15	G、J、K	24	0.17	560	3.28	SCI1005S-15N□
16	G、J、K	24	0.22	560	3.1	SCI1005S-16N□
18	G、J、K	25	0.23	420	3.1	SCI1005S-18N□
19	G、J、K	24	0.20	480	3.04	SCI1005S-19N□
20	G、J、K	25	0.25	420	3	SCI1005S-20N□
22	G、J、K	25	0.3	400	2.8	SCI1005S-22N□
23	G、J、K	22	0.3	400	2.72	SCI1005S-23N□
24	G、J、K	25	0.30	400	2.7	SCI1005S-24N□
27	G、J、K	24	0.3	400	2.48	SCI1005S-27N□
30	G、J、K	25	0.3	400	2.35	SCI1005S-30N□

◆ ELECTRICAL CHARACTERISTICS

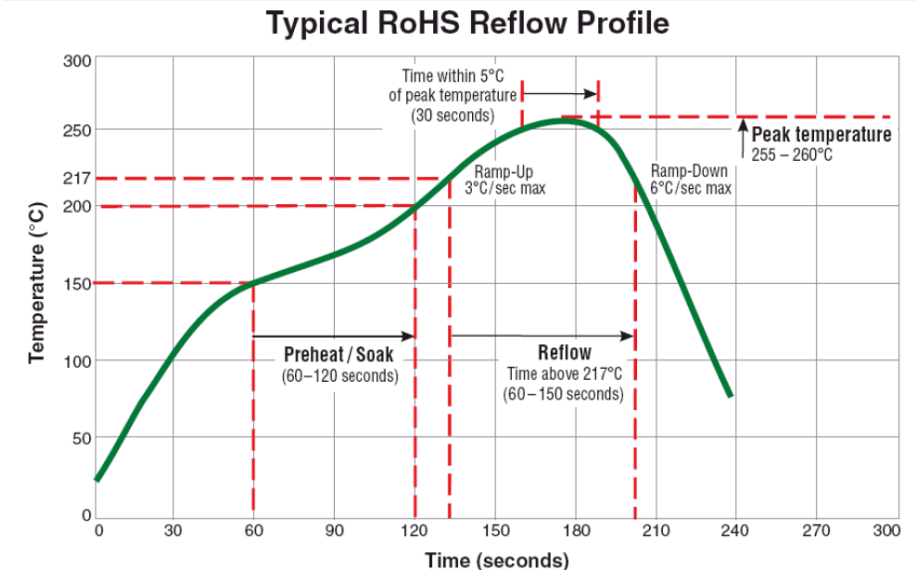
2020/5/14

Inductance 250MHz (nH)	Inductance Tolerance	Q 250MHz Min.	RDC (Ω) Max	IDC (mA) max.	SRF (GHz) Min.	Part No.
33	G、J、K	24	0.44	400	2.35	SCI1005S-33N□
36	G、J、K	24	0.44	320	2.32	SCI1005S-36N□
39	G、J、K	25	0.55	200	2.1	SCI1005S-39N□
40	G、J、K	24	0.44	320	2.24	SCI1005S-40N□
43	G、J、K	25	0.81	100	2.03	SCI1005S-43N□
47	G、J、K	20	0.83	150	2.1	SCI1005S-47N□
51	G、J、K	25	0.82	100	1.75	SCI1005S-51N□
56	G、J、K	22	0.97	100	1.76	SCI1005S-56N□
68	G、J、K	22	1.12	100	1.62	SCI1005S-68N□
82	J、K	20	1.55	50	1.26	SCI1005S-82N□
100	G、J、K	20	2	30	1.16	SCI1005S-R10□
120	J、K	20	2.2	50	1.1	SCI1005S-R12□

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

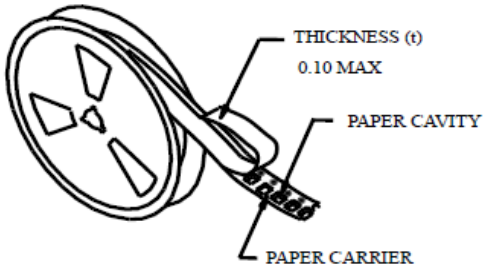


◆ RECOMMENDED REFLOW PROFILE

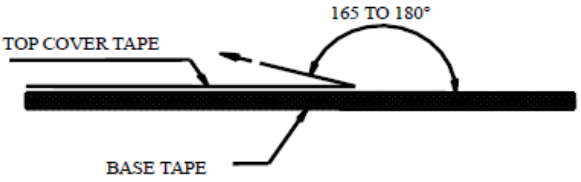


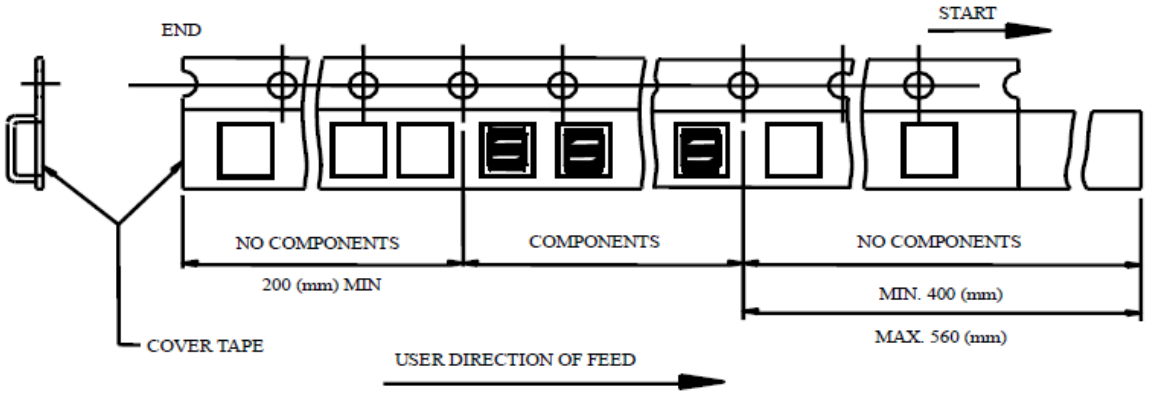
Test Item	Specification	Test Condition
Temp cycling	1.Appearance: NO Damage 2.Inductance:within±10% of initial value 3.Q change:within 0 ~ +40% of initial value	1.+125℃±5℃for30min～+25℃±5℃ for 2hrs～-40℃ ±5℃for30min 2. Total 10 cycles
Biased humidity		1. Temp: +60℃±2℃ 2. R.H: 90%±5% 3. Total 96hrs
Thermal shock		1. +125℃+3℃for30min～-65℃-5℃ for30min 。 2. Time of temp shift 2min 3. Total 50cycles
High temperature exposure (storage)		1. Temp: +125℃±2℃ 2. Total 48±2hrs
Low temp storage		1. Temp -40℃±2℃ 2. Total 48±2hrs
Vibrating test		1. Freq：10-55-10HZ 2. Amplitude：1.5mm 3. Direction：X，Y，Z 4. Time：2hrs for each direction, total 6hrs
Life Test	There should be no evidence of short or open circle	1. Temp +70℃±5℃ 2. Total test: 300hrs
Salt spraying	NO Damage	1. Chamber temp: 35℃ 2. 5% concentration of salt sprayed 3. To erode for 24hrs

PACKAGING :



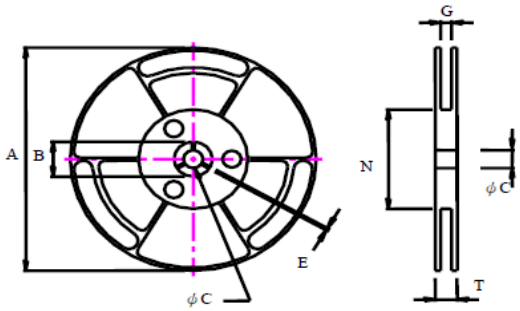
- THE FORCE FOR TEARING OFF COVER TAPE IS 10 TO 60 GRAMS IN THE ARROW DIRECTION.



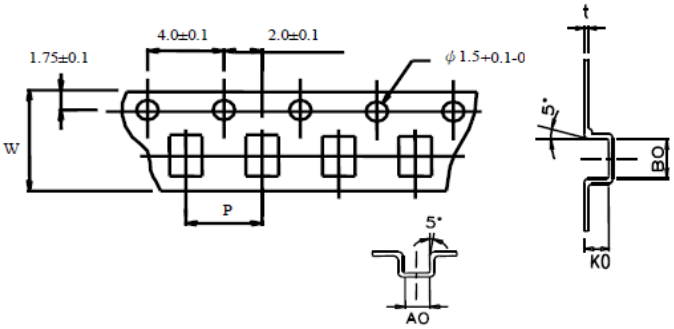


CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



DIMENSIONS OF CARRIER TAPE (mm)



∴ 10 sprocket hole pitch cumulative tolerance ±0.20

UNIT : mm

	A	B	C	E	G	N	P	T	W	A0	B0	K0	t
DIM.	178	21.0	13.0	2.5	8.4	50	2.0	14.4	8.0	0.67	1.2	0.53	0.75
TOL.	MAX.	±0.8	+0.5–0.2	+0.5–1.0	+2.0–0	MIN	±0.1	MAX	±0.2	±0.03	±0.03	±0.03	±0.03