

# Surface Mount, Multi Layer High Frequency Ceramic Inductor



### FEATURES

- High reliability.
- Surface mountable.
- Reflow or wave solderable.
- Tape and reel packaging per EIA specifications: 4000 pieces on 7" reel.

### MECHANICAL SPECIFICATIONS

**Solderability:** 90% coverage after 5 second dip in 235°C solder following 60 second preheat at 120°C and type R flux dip.

**Resistance to Solder Heat:** 10 seconds in 260°C solder, after preheat and flux above.

**Termination:** 100% tin.

**Terminal Strength:** 0.2kg (0.44 pounds) for 30 seconds.

**Beam Strength:** 0.2kg (0.44 pounds).

**Flex:** 0.0788" [2.0mm] minimum mounted on 0.063" [1.6mm] thick PC board.

### ENVIRONMENTAL SPECIFICATIONS

**Operating Temperature:** - 55°C to + 125°C.

**Thermal Shock:** 100 cycles, - 40°C to + 85°C.

**Humidity:** + 40°C, 85% RH, 1000 hours at full rated current.

**Load Life:** 85°C for 1000 hours full rated current.

### STANDARD ELECTRICAL SPECIFICATIONS

INDUCTANCE (nH)	TOL.	Q (MIN.)	TEST FREQUENCY L + Q (MHz)	Q (TYPICAL)						SRF (MHz)		DCR MAX. (OHMS)	RATED CURRENT (mA)
				100MHz	300MHz	500MHz	800MHz	1000MHz	1800MHz	MIN	TYP		
1.0	± 0.3nH	8	100	11	20	26	34	39	30	10000	13000	0.12	300
1.2	± 0.3nH	8	100	11	20	26	34	39	30	10000	13000	0.12	300
1.5	± 0.3nH	8	100	11	20	26	34	39	30	6000	13000	0.13	300
1.8	± 0.3nH	8	100	11	18	24	30	35	30	6000	11000	0.14	300
2.2	± 0.3nH	8	100	10	17	24	29	35	30	6000	10000	0.16	300
2.7	± 0.3nH	8	100	10	17	23	29	34	30	6000	9000	0.17	300
3.3	± 0.3nH	8	100	10	17	23	28	34	30	6000	8000	0.19	300
3.9	± 0.3nH	8	100	10	17	23	28	33	30	4000	7000	0.22	300
4.7	± 0.3nH	8	100	10	17	23	28	33	30	4000	6000	0.24	300
5.6	± 0.3nH	8	100	10	17	22	28	33	30	4000	5700	0.27	300
6.8	± 10%, ± 5%	8	100	10	16	22	27	33	30	3900	5500	0.32	250
8.2	± 10%, ± 5%	8	100	10	17	22	28	32	30	3600	4900	0.37	250
10	± 10%, ± 5%	8	100	10	17	22	30	32	28	3200	4300	0.42	250
12	± 10%, ± 5%	8	100	11	18	24	31	34	28	2700	3900	0.50	250
15	± 10%, ± 5%	8	100	11	18	24	30	33	27	2300	3500	0.55	250
18	± 10%, ± 5%	8	100	11	18	24	30	32	20	2100	3100	0.65	200
22	± 10%, ± 5%	8	100	11	18	24	30	31	13	1900	2800	0.80	200
27	± 10%, ± 5%	8	100	11	18	23	27	29	10	1600	2300	0.90	200
33	± 10%, ± 5%	8	100	11	18	22	25	25	-	1300	1900	1.00	200
39	± 10%, ± 5%	8	100	11	18	22	24	23	-	1200	1700	1.20	150
47	± 10%, ± 5%	8	100	11	18	21	23	21	-	1000	1500	1.30	150
56	± 10%, ± 5%	8	100	11	18	20	21	19	-	750	1300	1.40	150
68	± 10%, ± 5%	8	100	11	17	19	19	16	-	750	1200	1.40	150
82	± 10%, ± 5%	8	100	10	17	19	16	10	-	600	1100	1.60	100
100	± 10%, ± 5%	8	100	10	16	18	10	-	-	600	1000	1.60	100

### DIMENSIONS in inches [millimeters]



### DESCRIPTION

ILC-0402 MODEL	10nH INDUCTANCE	± 10% TOLERANCE
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### SAP PART NUMBERING GUIDELINES (INTERNAL)

