

Surface Mount, Multi Layer High Frequency Ceramic Inductor



MECHANICAL SPECIFICATIONS

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

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

Terminal Strength: 0.2 kg (0.44 lbs) for 30 s

Beam Strength: 0.2 kg (0.44 lbs)

FEATURES

- High reliability
- Surface mountable
- Reflow or wave solderable
- Tape and reel packaging per EIA specifications: 4000 pieces on 7" reel
- 100 % lead (Pb)-free and RoHS compliant



RoHS
COMPLIANT

Flex: 0.0788" [2.0 mm] minimum mounted on 0.063" [1.6 mm] 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 h at full rated current

Load Life: 85 °C for 1000 h full rated current

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	INDUCTANCE (nH)	TOL.	Q (MIN.)	TEST FREQUENCY (MHz)	Q (TYPICAL)			DCR MAX. (Ω)	SRF (MHz)		MAX. RATED CURRENT (mA)
					100 MHz	500 MHz	1000 MHz		MIN.	TYP	
ILC0402ER1N0S	1.0	±0.3 nH	8	100	10	21	30	0.12	10 000	18 000	300
ILC0402ER1N2S	1.2	±0.3 nH	8	100	10	23	31	0.12	10 000	17 000	300
ILC0402ER1N5S	1.5	±0.3 nH	8	100	10	25	35	0.13	6000	11 000	300
ILC0402ER1N8S	1.8	±0.3 nH	8	100	10	25	35	0.14	6000	11 000	300
ILC0402ER2N2S	2.2	±0.3 nH	8	100	10	23	32	0.16	6000	8700	300
ILC0402ER2N7S	2.7	±0.3 nH	8	100	10	21	30	0.17	6000	7800	300
ILC0402ER3N3S	3.3	±0.3 nH	8	100	10	22	31	0.19	6000	6400	300
ILC0402ER3N9S	3.9	±0.3 nH	8	100	10	19	26	0.22	4000	5800	300
ILC0402ER4N7S	4.7	±0.3 nH	8	100	10	19	26	0.24	4000	5100	300
ILC0402ER5N6S	5.6	±0.3 nH	8	100	10	20	26	0.27	4000	4700	300
ILC0402ER6N8J	6.8	±5 %	8	100	10	19	26	0.32	3900	4200	250
ILC0402ER8N2J	8.2	±5 %	8	100	10	22	29	0.37	3600	3800	250
ILC0402ER10NJ	10	±5 %	8	100	10	18	23	0.42	3200	3400	250
ILC0402ER12NJ	12	±5 %	8	100	10	18	23	0.50	2700	2900	250
ILC0402ER15NJ	15	±5 %	8	100	10	19	24	0.55	2300	2500	250
ILC0402ER18NJ	18	±5 %	8	100	10	20	25	0.65	2100	2400	200
ILC0402ER22NJ	22	±5 %	8	100	10	22	26	0.80	1900	2200	200
ILC0402ER27NJ	27	±5 %	8	100	10	22	25	0.90	1600	2000	200
ILC0402ER33NJ	33	±5 %	8	100	10	19	20	1.00	1300	1800	200
ILC0402ER39NJ	39	±5 %	8	100	10	21	20	1.20	1200	1600	150
ILC0402ER47NJ	47	±5 %	8	100	10	18	15	1.30	1000	1500	150
ILC0402ER56NJ	56	±5 %	8	100	11	21	14	1.40	750	1200	150
ILC0402ER68NJ	68	±5 %	8	100	11	18	12	1.40	750	1250	150
ILC0402ER82NJ	82	±5 %	8	100	11	19	8	2.00	600	1100	100
ILC0402ERR10J	100	±5 %	8	100	11	17	2	2.00	600	1000	100

DIMENSIONS in inches [millimeters]



DESCRIPTION

ILC-0402 MODEL	10 nH INDUCTANCE VALUE	± 10 % INDUCTANCE TOLERANCE	ER PACKAGE CODE	e3 JEDEC LEAD (Pb)-FREE STANDARD
GLOBAL PART NUMBER				
I L C	0 4 0 2	E R	1 0 N	K
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	TOL.



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