Surface Mount, Multi Layer High Frequency Ceramic Inductors





MECHANICAL SPECIFICATIONS

Solderability: 95 % coverage after 3 s ± 1 s dip in 240 °C ± 5 °C solder following 60 s preheat at 150 °C and type R flux dip

Resistance to Solder Heat: 6 s ± 1 s in 265 °C ± 3 °C solder after preheat and flux above

Terminal Strength: 1.02 kg for 10 s

Flex: 3.0 mm min. mounted on 0.8 mm thick PC board

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -55 °C to +125 °C (including self-temperature rise)

Thermal Shock: 1000 cycles, -55 °C ± 5 °C to +125 °C ± 5 °C

Humidity: 85 °C ± 2 °C, 85 % ± 5 % RH, 1000 h ± 12 h

Load Life: 125 °C ± 2 °C for 1000 h ± 12 h at full rated current

FEATURES

- High reliability
- Surface mountable
- Reflow or wave solderable
- Tape and reel packaging per EIA specifications: 4000 pieces on 7" reel
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

STANDARD ELECTRICAL SPECIFICATIONS

PART NUMBER	IND. (nH)	TOL.	TEST FREQUENCY (MHz)	Q MIN.	Q TYPICAL			SRF (MHz)		DCR MAX. (Ω)	RATED DC CURRENT MAX. (mA)
					100 MHz	500 MHz	1000 MHz	MIN.	TYP.		
ILC0603ER1N0S	1.0	0.3 nH	100	8	15	43	63	10 000	15 000	0.05	300
ILC0603ER1N2S	1.2	0.3 nH	100	8	14	38	55	10 000	14 000	0.05	300
ILC0603ER1N5S	1.5	0.3 nH	100	8	11	28	40	6000	13 000	0.10	300
ILC0603ER1N8S	1.8	0.3 nH	100	8	10	24	35	6000	11 000	0.10	300
ILC0603ER2N2S	2.2	0.3 nH	100	8	14	35	40	6000	10 000	0.10	300
ILC0603ER2N7S	2.7	0.3 nH	100	10	12	29	45	6000	7000	0.10	300
ILC0603ER3N3S	3.3	0.3 nH	100	10	16	40	47	4000	5900	0.12	300
ILC0603ER3N9S	3.9	0.3 nH	100	10	11	25	35	3500	4500	0.14	300
ILC0603ER4N7S	4.7	0.3 nH	100	10	11	26	35	3500	4500	0.16	300
ILC0603ER5N6S	5.6	0.3 nH	100	10	15	36	46	3500	4000	0.18	300
ILC0603ER6N8J	6.8	5 %	100	10	15	38	47	3000	3600	0.22	300
ILC0603ER8N2J	8.2	5 %	100	10	13	31	41	3000	3500	0.24	300
ILC0603ER10NJ	10	5 %	100	12	15	34	47	2800	3000	0.26	300
ILC0603ER12NJ	12	5 %	100	12	12	27	49	2000	2500	0.28	300
ILC0603ER15NJ	15	5 %	100	12	15	30	36	2000	2200	0.32	300
ILC0603ER18NJ	18	5 %	100	12	15	28	31	1800	2000	0.35	300
ILC0603ER22NJ	22	5 %	100	12	17	34	36	1800	1900	0.40	300
ILC0603ER27NJ	27	5 %	100	12	15	31	30	1500	1700	0.45	300
ILC0603ER33NJ	33	5 %	100	12	15	28	24	1200	1500	0.55	300
ILC0603ER39NJ	39	5 %	100	12	14	31	28	1100	1300	0.60	300
ILC0603ER47NJ	47	5 %	100	12	17	31	28	900	1300	0.70	300
ILC0603ER56NJ	56	5 %	100	12	19	34	26	900	1200	0.75	300
ILC0603ER68NJ	68	5 %	100	12	17	30	20	700	1000	0.85	300
ILC0603ER82NJ	82	5 %	100	12	16	29	18	600	1000	0.95	300
ILC0603ERR10J	100	5 %	100	12	16	24	3	600	800	1.00	300
ILC0603ERR12J	120	5 %	100	8	17	21	-	500	800	1.20	300
ILC0603ERR15J	150	5 %	100	8	19	20	-	500	700	1.20	300
ILC0603ERR18J	180	5 %	100	8	18	13	-	400	600	1.30	300
ILC0603ERR22J	220	5 %	100	8	18	-	-	400	500	1.50	300
ILC0603ERR27J	270	5 %	100	8	19	-	-	350	490	1.90	300

For technical questions, contact: magnetics@vishay.com

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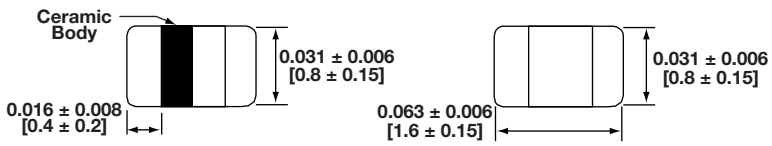
DIMENSIONS in inches [millimeters]



DESCRIPTION

ILC-0603	10 nH	± 5 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

I	L	C	0	6	0	3	E	R	1	0	N	J
PRODUCT FAMILY			SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.

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