

## Surface Mount, Multi Layer High Frequency Ceramic Inductor



**MECHANICAL SPECIFICATIONS**

**Solderability:** 90 % coverage after 5 s 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.  
**Termination:** 100 % tin  
**Terminal Strength:** 0.6 kg (1.32 lbs) for 30 s

**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



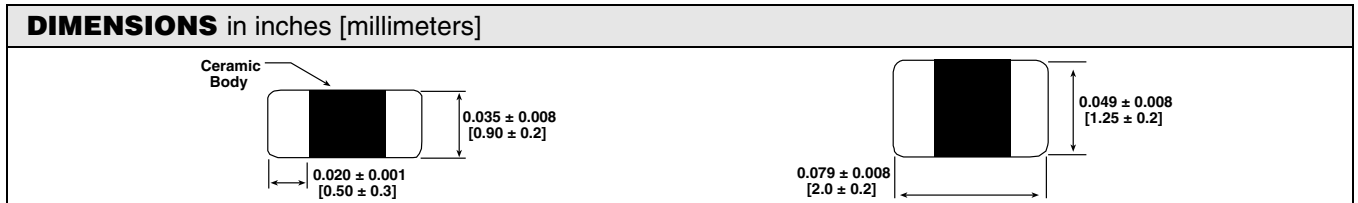
**RoHS  
COMPLIANT**

**Beam Strength:** 1.0 kg (2.20 lbs)  
**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	
ILC0805ER1N5S	1.5	± 0.3 nH	10	100	16	43	67	0.10	4000	7000	300
ILC0805ER1N8S	1.8	± 0.3 nH	10	100	16	56	59	0.10	4000	7000	300
ILC0805ER2N2S	2.2	± 0.3 nH	10	100	16	40	58	0.10	4000	7000	300
ILC0805ER2N7S	2.7	± 0.3 nH	12	100	16	43	60	0.10	4000	6500	300
ILC0805ER3N3S	3.3	± 0.3 nH	12	100	19	52	70	0.13	4000	5500	300
ILC0805ER3N9S	3.9	± 0.3 nH	12	100	19	52	75	0.15	3000	4400	300
ILC0805ER4N7S	4.7	± 0.3 nH	12	100	19	53	70	0.20	3000	3500	300
ILC0805ER5N6S	5.6	± 0.3 nH	15	100	19	53	70	0.23	3000	3500	300
ILC0805ER6N8J	6.8	± 5 %	15	100	19	44	60	0.25	2500	3300	300
ILC0805ER8N2J	8.2	± 5 %	15	100	19	45	60	0.28	2000	2600	300
ILC0805ER10N	10	± 5 %	15	100	20	53	60	0.30	3000	2300	300
ILC0805ER12N	12	± 5 %	15	100	20	36	45	0.35	1500	2000	300
ILC0805ER15N	15	± 5 %	15	100	20	46	45	0.40	1500	1800	300
ILC0805ER18N	18	± 5 %	15	100	20	52	45	0.45	1300	1700	300
ILC0805ER22N	22	± 5 %	18	100	20	40	31	0.50	1200	1400	300
ILC0805ER27N	27	± 5 %	18	100	20	44	29	0.55	1000	1300	300
ILC0805ER33N	33	± 5 %	18	100	20	36	15	0.60	1000	1200	300
ILC0805ER39N	39	± 5 %	18	100	20	36	12	0.65	800	1100	300
ILC0805ER47N	47	± 5 %	18	100	21	33	12	0.70	800	1000	300
ILC0805ER56N	56	± 5 %	18	100	21	31	9	0.75	700	900	300
ILC0805ER68N	68	± 5 %	18	100	21	30	-	0.80	600	800	300
ILC0805ER82N	82	± 5 %	18	100	22	26	-	0.90	500	700	300
ILC0805ERR10J	100	± 5 %	18	100	22	22	-	0.90	500	700	300
ILC0805ERR12J	120	± 5 %	13	50	22	17	-	0.95	400	600	300
ILC0805ERR15J	150	± 5 %	13	50	22	9	-	1.00	300	600	300
ILC0805ERR18J	180	± 5 %	13	50	21	8	-	1.10	300	500	300
ILC0805ERR22J	220	± 5 %	12	50	20	4	-	1.20	300	500	300
ILC0805ERR27J	270	± 5 %	12	50	24	17	-	1.30	200	400	300
ILC0805ERR33J	330	± 5 %	12	50	24	-	-	1.50	200	380	300
ILC0805ERR39J	390	± 5 %	12	50	24	-	-	1.50	200	300	300
ILC0805ERR47J	470	± 5 %	10	50	24	-	-	1.50	200	290	300



DESCRIPTION				
ILC-0805 MODEL	10 nH INDUCTANCE VALUE	± 10 % INDUCTANCE TOLERANCE	ER PACKAGE CODE	e3 JEDEC LEAD (Pb)-FREE STANDARD
GLOBAL PART NUMBER				
I L C	0 8 0 5	E R	1 0 N	K
PRODUCT FAMILY	SIZE	PACKAGE CODE	INDUCTANCE VALUE	TOL.



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