

Vishay Dale

## Surface Mount, Multilayer High Frequency Ceramic Inductors



### **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 Terminal Strength: 0.6 kg (1.32 lbs) for 30 s

Termination: 100 % tin

Beam Strength: 1.0 kg (2.20 lbs)

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

#### STANDARD ELECTRICAL SPECIFICATIONS

#### **FEATURES**

- High reliability
- Surface mountable
- Reflow or wave solderable
- Tape and reel packaging per EIA specifications: RoHS ٠ 4000 pieces on 7" reel Compliant to RoHS Directive 2002/95/EC
  - COMPLIANT HALOGEN FREE
- Halogen-free according to IEC 61249-2-21 definition

#### **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 at full rated current

	 			TEST		Q TYPICAL			SRF (MHz)		DCR	RATED DC
PART NUMBER	IND. (nH)	TOL.	THICKNESS "D" (INCHES [mm])	FREQ. (MHz)	Q MIN.	100 MHz		1000 MHz		TYP.	MAX. (Ω)	CURRENT MAX. (mA)
ILC0805ER1N5S	1.5	0.3 nH	$0.035 \pm 0.008 [0.90 \pm 0.2]$	100	10	16	43	67		7000	0.10	300
ILC0805ER1N8S	1.8	0.3 nH	$0.035 \pm 0.008 [0.90 \pm 0.2]$	100	10	16	56	59		7000	0.10	300
ILC0805ER2N2S	2.2		$0.035 \pm 0.008 [0.90 \pm 0.2]$	100	10	16	40	58		7000	0.10	300
ILC0805ER2N7S	2.7		$0.005 \pm 0.000 [0.00 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	12	16	43	60		6500	0.10	300
ILC0805ER3N3S	3.3	0.3 nH	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	12	19	52	70		5500	0.13	300
ILC0805ER3N9S	3.9		$0.005 \pm 0.000 [0.00 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	12	19	52	75		4400	0.15	300
ILC0805ER4N7S	4.7	0.3 nH		100	12	19	53	70		3500	0.20	300
ILC0805ER5N6S	5.6		$0.035 \pm 0.008 [0.90 \pm 0.2]$	100	15	19	53	70		3500	0.23	300
ILC0805ER6N8J	6.8	5 %	$0.035 \pm 0.008 [0.90 \pm 0.2]$	100	15	19	44	60		3300	0.25	300
ILC0805ER8N2J	8.2	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$	100	15	19	45	60		2600	0.28	300
ILC0805ER10NJ	10	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$	100	15	20	53	60		2300	0.30	300
ILC0805ER12NJ	12	5%	$0.005 \pm 0.000 [0.00 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	15	20	36	45	1500		0.35	300
ILC0805ER15NJ	15	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	15	20	46	45		1800	0.33	300
ILC0805ER18NJ	18	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	15	20	52	45		1700	0.40	300
ILC0805ER22NJ	22	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	18	20	40	31		1400	0.40	300
ILC0805ER27NJ	27	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	18	20	40	29		1300	0.55	300
ILC0805ER33NJ	33	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	18	20	36	15	1000		0.60	300
ILC0805ER39NJ	39	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	18	20	36	12	800	1100	0.65	300
ILC0805ER47NJ	47	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	18	20	33	12	800	1000	0.03	300
ILC0805ER56NJ	56	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	18	21	33	9	700	900	0.70	300
ILC0805ER68NJ	68	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	18	21	30	-	600	800	0.75	300
ILC0805ER82NJ	82	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	18	21	26	_	500	700	0.80	300
	o∠ 100	5% 5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	100	18	22	20	_	500	700	0.90	300
ILC0805ERR10J ILC0805ERR12J	120	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	50	13	22	17	_	400	600	0.90	300
ILC0805ERR12J	150	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	50	13	22	9	_	300	600	1.00	300
ILC0805ERR18J	180	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	50	13	22	8	_	300	500	1.10	300
ILC0805ERR22J	220	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	50	12	21	0 4	-	300	500	1.10	300
ILC0805ERR27J	270	5%	$0.035 \pm 0.008 [0.90 \pm 0.2]$ $0.035 \pm 0.008 [0.90 \pm 0.2]$	50	12	20 24	17	_	200	400	1.30	300
					=			ı.	200	100	1100	000
DIMENSIONS in inches [millimeters]												
Body D D D 0.049 ± 0.008												
$  \underbrace{0.020 \pm 0.001}_{[0.50 \pm 0.3]}   \underbrace{0.079 \pm 0.008}_{[2.0 \pm 0.2]}   - \underbrace{- \underbrace{- \underbrace{- \underbrace{- \underbrace{- \underbrace{- \underbrace{- \underbrace{- \underbrace{-$												
DESCRIPTION												
ILC-0805 10 nH ± 10 % ER e3												
MODEL INDUCTANCE VALUE INDUCTANCE TOLERANCE PACKAGE CODE JEDEC LEAD (Pb)-FREE STANDARD												
GLOBAL PART NUMBER												
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PRODUCT SIZE PACKAGE INDUCTANCE TOL. FAMILY CODE VALUE												
TAWILT CODE VALUE												



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