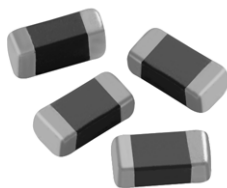


## Monolithic Chip Inductors



### FEATURES

- High reliability
- Surface mountable
- Magnetically self shielded
- Nickel barrier plating virtually eliminates silver migration
- 100 % Lead (Pb)-free and RoHS compliant



**RoHS**  
COMPLIANT

### MECHANICAL SPECIFICATIONS

**Solderability:** 90 % coverage after 5 second dip in 235 °C solder following 60 second preheat at 120 °C to 150 °C and type R flux dip

**Resistance To Solder Heat:** 10 seconds in 260 °C solder after preheat and flux per above

**Termination:** 100 % Sn

**Terminal Strength:** 0.5 kg for 30 seconds

**Beam Strength:** 0.3 kg

### ENVIRONMENTAL SPECIFICATIONS

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

**Thermal Shock:** - 40 °C to + 85 °C

**Humidity:** 90 % RH at 40 °C, 1000 hours at full rated current

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

### STANDARD ELECTRICAL SPECIFICATIONS

INDUCTANCE ( $\mu$ H) $\pm 10\%$	TOLERANCE	THICKNESS "D" Inches [mm]	Q (Min.)	TEST FREQUENCY L & Q (MHz)	MIN. SELF-RESONANT FREQUENCY (MHz)	MAX. DCR (Ohms)	RATED (mA)
0.047	$\pm 20\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	10	50	260	0.15	50
0.068	$\pm 20\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	10	50	250	0.25	50
0.082	$\pm 20\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	10	50	245	0.25	50
0.10	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	276	0.50	50
0.12	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	236	0.50	50
0.15	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	207	0.60	50
0.18	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	190	0.60	50
0.22	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	173	0.80	50
0.27	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	157	0.80	50
0.33	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	144	0.85	35
0.39	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	127	1.00	35
0.47	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	121	1.35	35
0.56	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	110	1.55	35
0.68	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	104	1.70	35
0.82	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	15	25	98	2.10	35
1.0	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	35	10	87	0.60	25
1.2	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	35	10	74	0.80	25
1.5	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	35	10	69	0.80	25
1.8	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	35	10	64	0.95	25
2.2	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	35	10	58	1.15	15
2.7	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	35	10	52	1.35	15
3.3	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	35	10	46	1.55	15
3.9	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	35	10	41	1.70	15
4.7	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	35	10	38	2.10	15
5.6	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	30	4.0	22	1.55	15
6.8	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	30	4.0	20	1.70	15
8.2	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	30	4.0	18	2.10	15
10.0	$\pm 10\%$	0.031 $\pm$ 0.008 [0.80 $\pm$ 0.2]	30	2.0	17	2.55	15

### DESCRIPTION

ILSB-0603	3.3 $\mu$ H	$\pm 10\%$	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD (Pb)-FREE STANDARD

### GLOBAL PART NUMBER

I	L	S	B	0	6	0	3	E	R	3	R	3	K
MODEL				SIZE				PACKAGE CODE		INDUCTANCE VALUE			INDUCTANCE TOLERANCE

DIMENSIONS in inches [millimeters]							
<p>100 % Sn Termination</p> <p>Ferrite Body</p> <p>Dimensional Outline</p> <p>Suggested Pad Layout</p>							
A	B	C	D	E	F	G	H
0.063 ± 0.006 [1.6 ± 0.15]	0.031 ± 0.006 [0.8 ± 0.15]	0.012 ± 0.006 [0.3 ± 0.15]	0.031 ± 0.008 [0.8 ± 0.2]	0.105 [2.7]	0.035 [0.9]	0.025 [0.64]	0.040 [1.0]

TAPE AND REEL SPECIFICATIONS 0603 SIZE PER EIA-481-1 in inches [millimeters]		
<p>4000 Piece/Reel</p> <p>Empty Trailer</p> <p>Components</p> <p>Empty Tape</p> <p>Cover Tape Leader</p> <p>Unreel Direction</p> <p>160 mm Minimum</p> <p>390 mm Minimum</p>	A <sub>0</sub>	0.045 ± 0.004 [1.14 ± 0.1]
	B <sub>0</sub>	0.068 ± 0.004 [1.75 ± 0.1]
	D <sub>0</sub>	0.059 ± 0.005/ -0.000 [1.5 ± 0.127]
	D <sub>1</sub>	0.039 Min. [1.0 Min.]
	E <sub>1</sub>	0.069 ± 0.004 [1.75 ± 0.1]
	F	0.138 ± 0.002 [3.50 ± 0.05]
	K <sub>0</sub>	0.045 ± 0.002 [1.15 ± 0.05]
	P <sub>0</sub>	0.157 ± 0.004 [4.00 ± 0.1]
	P <sub>1</sub>	0.157 ± 0.004 [4.00 ± 0.1]
	P <sub>2</sub>	0.079 ± 0.002 [2.00 ± 0.05]
	W	0.327 Max. [8.3 Max.]
	T	0.008 ± 0.002 [0.2 ± 0.05]
	A	7.000 ± 0.079 [178 ± 2.0]
	N	2.500 [63.5]
	C	0.512 ± 0.020 [13.00 ± 0.05]
	W <sub>1</sub>	0.315 + 0.059/- 0.00 [8.00 ± 1.5]
	T <sub>1</sub>	0.079 ± 0.002 [2.00 ± 0.05]



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