

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: 90/10 Sn/Pb

Terminal Strength: 0.6 kg for 30 seconds

Beam Strength: 1.0 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 (μ H) $\pm 10\%$	TOLERANCE	THICKNESS "D" Inches [mm]	Q (Min.)	TEST FREQUENCY L & Q (MHz)	MINIMUM SELF-RESONANT FREQUENCY (MHz)	MAXIMUM DCR (Ohms)	RATED DC CURRENT (mA)
0.047	$\pm 20\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	15	50	320	0.20	300
0.056	$\pm 20\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	15	50	300	0.20	300
0.068	$\pm 20\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	15	50	280	0.20	300
0.082	$\pm 20\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	15	50	255	0.20	300
0.10	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	20	25	279	0.30	250
0.12	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	20	25	253	0.30	250
0.15	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	20	25	230	0.40	250
0.18	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	20	25	213	0.40	250
0.22	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	20	25	196	0.50	250
0.27	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	20	25	173	0.50	250
0.33	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	20	25	167	0.55	250
0.39	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	25	25	156	0.65	200
0.47	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	25	25	144	0.65	200
0.56	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	25	25	133	0.75	150
0.68	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	25	25	121	0.80	150
0.82	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	25	25	115	1.00	150
1.0	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	45	10	87	0.40	50
1.2	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	45	10	75	0.50	50
1.5	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	45	10	69	0.50	50
1.8	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	45	10	64	0.60	50
2.2	$\pm 10\%$	0.035 \pm 0.008 [0.90 \pm 0.2]	45	10	58	0.65	30
2.7	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	45	10	52	0.75	30
3.3	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	45	10	48	0.80	30
3.9	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	45	10	44	0.90	30
4.7	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	45	10	41	1.00	30
5.6	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	45	4	37	0.90	15
6.8	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	45	4	34	1.00	15
8.2	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	45	4	30	1.10	15
10.0	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	50	2	28	1.15	15
12.0	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	50	2	26	1.25	15
15.0	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	30	1	22	0.80	5
18.0	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	30	1	21	0.90	5
22.0	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	30	1	19	1.10	5
27.0	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	30	1	17	1.15	5
33.0	$\pm 10\%$	0.049 \pm 0.008 [1.25 \pm 0.2]	30	0.4	13	1.25	5

DESCRIPTION

ILSB-0805	3.3 μ H	$\pm 10\%$	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC LEAD FREE STANDARD

GLOBAL PART NUMBER

I L S B	0 8 0 5	E R	3 R 3	K
MODEL	SIZE	PACKAGE CODE	INDUCTANCE VALUE	INDUCTANCE TOLERANCE

DIMENSIONS in inches [millimeters]							
<p>Dimensional Outline</p>				<p>Suggested Pad Layout</p>			
A	B	C	D	E	F	G	H
0.079 ± 0.008 [2.0 ± 0.2]	0.049 ± 0.008 [1.25 ± 0.2]	0.020 ± 0.12 [0.5 ± 0.3]	See Electrical Specs	0.120 [3.0]	0.051 [1.3]	0.040 [1.0]	0.040 [1.0]

TAPE AND REEL SPECIFICATIONS 0805 SIZE PER EIA-481-1 in inches [millimeters]		
	A ₀	0.059 ± .004 [1.50 ± 0.1]
	B ₀	0.092 ± .004 [2.34 ± 0.1]
	D ₀	0.059 + .005/- 0.000 [1.5 + 0.127]
	D ₁	0.039 Min. [1.0 Min.]
	E ₁	0.069 ± .004 [1.75 ± 0.1]
	F	0.138 ± .002 [3.50 ± 0.05]
	K ₀	0.049 ± .002 [1.24 ± 0.05]
	P ₀	0.157 ± .004 [4.00 ± 0.1]
	P ₁	0.157 ± .004 [4.00 ± 0.1]
	P ₂	0.079 ± .002 [2.00 ± 0.05]
	W	0.327 Max. [8.3 Max.]
	T	0.008 ± .002 [0.2 ± 0.05]
	A	7.000 ± .078 [178 ± 2.0]
	N	2.500 [63.5]
	C	0.512 ± .020 [13.00 + 0.50]
	W ₁	0.315 + 0.059/- 0.00 [8.00 + 1.50]
T ₁	0.079 ± .002 [2.00 ± 0.05]	



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