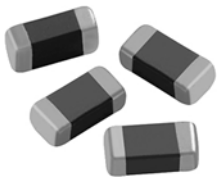
Monolithic Chip Inductors



FEATURES

- High reliability
- Surface mountable
- Magnetically self shielded
- Nickel barrier plating virtuallly eliminates silver migration
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

MECHANICAL SPECIFICATIONS

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

Resistance to Solder Heat: 10 s in 260 °C solder, after preheat and flux per above

Termination: 100 % Sn

Terminal Strength: 0.1 kg for 30 s

Beam Strength: 2.5 kg

ENVIRONMENTAL SPECIFICATIONS

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

Thermal Shock: -40 °C to +85 °C

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

Load Life: 85 °C for 1000 h at full rated current

STANDARD ELECTRICAL SPECIFICATIONS

INDUCTANCE (µH)	TOL.	THICKNESS "D" (INCHES [mm])	TEST FREQ. (MHz) L AND Q	Q MIN.	SRF MIN. (MHz)	DCR MAX. (Ω)	RATED DC CURRENT (mA)
0.047	20 %	0.043 ± 0.012 [1.10 ± 0.3]	50	20	368	0.15	300
0.068	20 %	0.043 ± 0.012 [1.10 ± 0.3]	50	20	322	0.25	300
0.10	10 %	0.043 ± 0.012 [1.10 ± 0.3]	25	20	271	0.25	250
0.12	10 %	0.043 ± 0.012 [1.10 ± 0.3]	25	20	253	0.30	250
0.15	10 %	0.043 ± 0.012 [1.10 ± 0.3]	25	20	230	0.30	250
0.18	10 %	0.043 ± 0.012 [1.10 ± 0.3]	25	20	213	0.40	250
0.22	10 %	0.043 ± 0.012 [1.10 ± 0.3]	25	20	196	0.40	250
0.27	10 %	0.043 ± 0.012 [1.10 ± 0.3]	25	20	173	0.50	250
0.33	10 %	0.043 ± 0.012 [1.10 ± 0.3]	25	20	167	0.60	250
0.39	10 %	0.043 ± 0.012 [1.10 ± 0.3]	25	25	156	0.50	200
0.47	10 %	0.043 ± 0.012 [1.10 ± 0.3]	25	25	144	0.60	200
0.68	10 %	0.043 ± 0.012 [1.10 ± 0.3]	25	25	121	0.80	150
1.0	10 %	0.043 ± 0.012 [1.10 ± 0.3]	10	45	87	0.40	100
1.2	10 %	0.043 ± 0.012 [1.10 ± 0.3]	10	45	75	0.50	100
1.5	10 %	0.043 ± 0.012 [1.10 ± 0.3]	10	45	69	0.50	50
1.8	10 %	0.043 ± 0.012 [1.10 ± 0.3]	10	45	64	0.50	50
2.2	10 %	0.043 ± 0.012 [1.10 ± 0.3]	10	45	58	0.50	50
3.3	10 %	0.043 ± 0.012 [1.10 ± 0.3]	10	45	48	0.70	50
3.9	10 %	0.043 ± 0.012 [1.10 ± 0.3]	10	45	44	0.80	50
4.7	10 %	0.043 ± 0.012 [1.10 ± 0.3]	10	45	41	0.90	50
5.6	10 %	0.043 ± 0.012 [1.10 ± 0.3]	4	45	37	0.70	25
6.8	10 %	0.043 ± 0.012 [1.10 ± 0.3]	4	45	34	0.80	25
8.2	10 %	0.043 ± 0.012 [1.10 ± 0.3]	4	45	30	0.90	25
10	10 %	0.043 ± 0.012 [1.10 ± 0.3]	2	45	28	1.00	25
12	10 %	0.043 ± 0.012 [1.10 ± 0.3]	2	45	26	1.05	15
15	10 %	0.043 ± 0.012 [1.10 ± 0.3]	1	45	22	0.70	5
18	10 %	0.043 ± 0.012 [1.10 ± 0.3]	1	45	21	0.70	5
22	10 %	0.043 ± 0.012 [1.10 ± 0.3]	1	35	19	0.90	5
27	10 %	0.043 ± 0.012 [1.10 ± 0.3]	1	35	17	0.90	5
33	10 %	0.043 ± 0.012 [1.10 ± 0.3]	1	35	15	1.05	5

DESCRIPTION

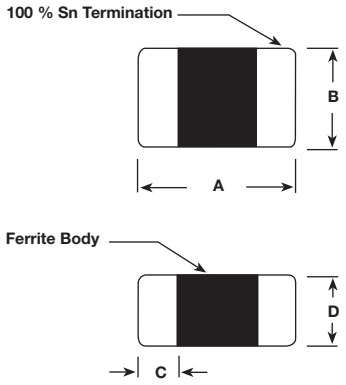
ILSB-1206	3.3 µH	± 10 %	ER	e3
MODEL	INDUCTANCE VALUE	INDUCTANCE TOLERANCE	PACKAGE CODE	JEDEC® LEAD (Pb)-FREE STANDARD

GLOBAL PART NUMBER

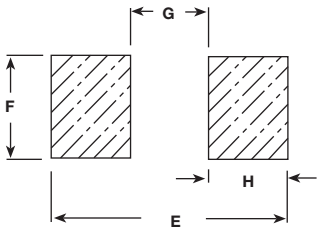
I	L	S	B	1	2	0	6	E	R	3	R	3	K
PRODUCT FAMILY				SIZE				PACKAGE CODE		INDUCTANCE VALUE			TOL.

For technical questions, contact: magnetics@vishay.com

DIMENSIONS in inches [millimeters]



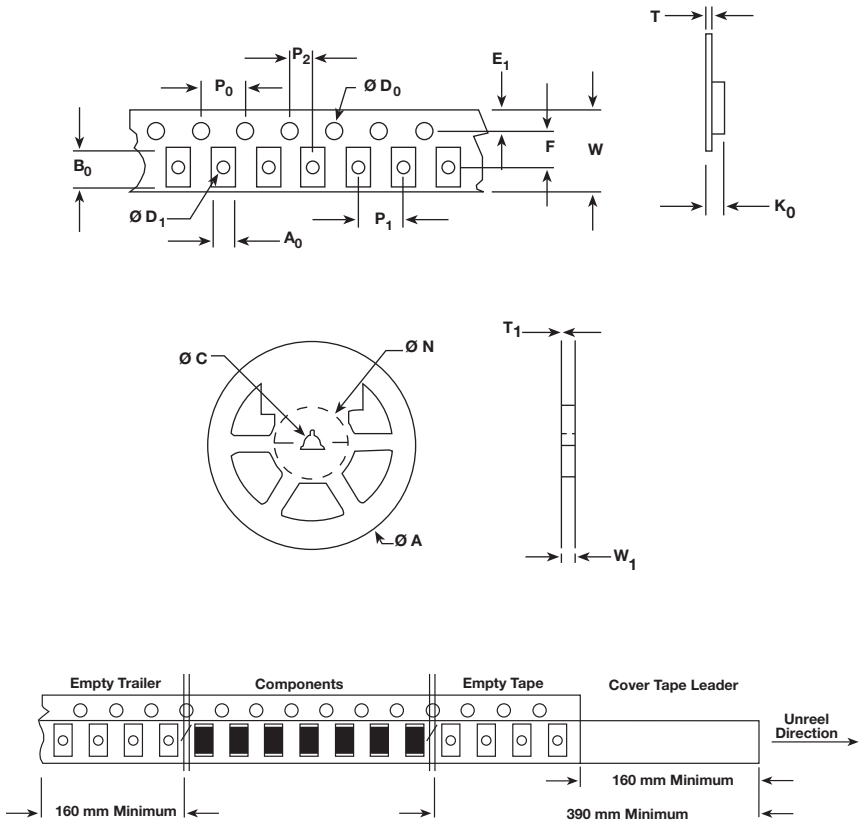
Dimensional Outline



Suggested Pad Layout

A	B	C	D	E	F	G	H
0.126 ± 0.008 [3.2 ± 0.2]	0.063 ± 0.008 [1.6 ± 0.2]	0.020 ± 0.012 [0.5 ± 0.3]	0.043 ± 0.012 [1.10 ± 0.3]	0.185 [4.7]	0.070 [1.8]	0.087 [2.2]	0.047 [1.2]

TAPE AND REEL SPECIFICATIONS 1206 SIE PER EIA-481-1 in inches [millimeters]



A_0	0.073 ± 0.004 [1.85 ± 0.1]
B_0	0.135 ± 0.004 [3.43 ± 0.1]
D_0	0.059 + 0.005/- 0.000 [1.5 + 0.127]
D_1	0.039 min. [1.0 min.]
E_1	0.069 ± 0.004 [1.75 ± 0.1]
F	0.138 ± 0.002 [3.50 ± 0.05]
K_0	0.048 ± 0.002 [1.22 ± 0.05]
P_0	0.157 ± 0.004 [4.00 ± 0.1]
P_1	0.157 ± 0.004 [4.00 ± 0.1]
P_2	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 ± 0.50]
W_1	0.315 + 0.059/- 0.000 [8.00 + 1.5]
T_1	0.079 ± 0.002 [2.00 ± 0.05]

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