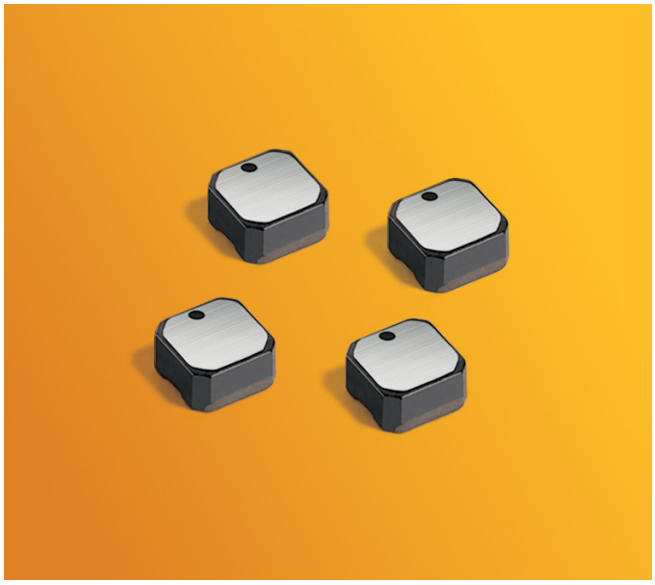
High-Reliability Power Inductors ML412PJB



- High temperature materials allow operation in ambient temperatures up to 155°C
- Special construction allows it to pass vibration testing to 80 G and shock testing to 1000 G.

Core material Ferrite

Terminations Silver-palladium-platinum-glass frit. Other terminations available at an additional cost

Weight 50 – 62 mg

Ambient temperature –55°C to +105°C with (40°C) Irms current

Maximum part temperature +155°C (Ambient + temperature rise)

Storage temperature Component: –55°C to +155°C. Tape and reel packaging: –55°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Enhanced crush-resistant packaging 1000/7″ reel
Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 1.65 mm pocket depth

Recommended pick and place nozzle OD: 3 mm; ID: ≤1.5 mm

Part number[1]	Inductance[2] ±20% (µH)	DCR max[3] (Ohms)	SRF (MHz)[4] min	SRF (MHz)[4] typ	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise
ML412PJB102MLZ	1.0	0.075	133	190	1.8	2.0	2.1	1.1	1.6
ML412PJB152MLZ	1.5	0.100	98.0	140	1.8	2.1	2.2	1.0	1.4
ML412PJB182MLZ	1.8	0.100	94.5	135	1.5	1.7	2.1	0.88	1.1
ML412PJB222MLZ	2.2	0.110	77.0	110	2.0	2.0	2.1	0.88	1.1
ML412PJB332MLZ	3.3	0.130	63.0	90	1.4	1.5	1.5	0.80	1.1
ML412PJB472MLZ	4.7	0.200	55.3	79	1.1	1.2	1.2	0.72	1.0
ML412PJB682MLZ	6.8	0.300	40.6	58	0.83	0.86	0.89	0.54	0.72
ML412PJB103MLZ	10	0.440	33.6	48	0.60	0.69	0.73	0.44	0.60
ML412PJB153MLZ	15	0.700	24.5	35	0.58	0.61	0.62	0.35	0.47
ML412PJB183MLZ	18	0.750	23.1	33	0.56	0.58	0.59	0.34	0.46
ML412PJB223MLZ	22	0.825	21.0	30	0.48	0.49	0.50	0.34	0.46
ML412PJB333MLZ	33	1.30	16.1	23	0.39	0.41	0.42	0.28	0.38
ML412PJB473MLZ	47	1.55	11.9	17	0.36	0.38	0.39	0.24	0.32
ML412PJB683MLZ	68	2.25	9.80	14	0.30	0.31	0.32	0.20	0.26
ML412PJB104MLZ	100	3.40	7.70	11	0.24	0.25	0.26	0.15	0.21
ML412PJB124MLZ	120	4.60	6.30	9.0	0.21	0.22	0.23	0.14	0.18
ML412PJB154MLZ	150	6.10	5.60	8.0	0.19	0.20	0.20	0.12	0.16
ML412PJB184MLZ	180	8.60	5.25	7.5	0.16	0.17	0.17	0.10	0.14
ML412PJB224MLZ	220	9.50	4.20	6.0	0.15	0.16	0.16	0.090	0.12
ML412PJB334MLZ	330	23.0	3.50	5.0	0.10	0.11	0.11	0.060	0.080

1. When ordering, please specify **termination** and **testing** codes:

ML412PJB333MLZ

Termination **L** = Silver-palladium-platinum-glass frit
R = Matte tin over nickel over silver

esting: **Z** = Unscreened
H = Group A screening per Coilcraft CP-SA-10001
T = Screening per MIL-STD-981
U = Screening per EEE-INST-002
F = Screening per ESCC 3201
All screening performed to the document's latest revision
Custom screening also available

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A. Inductance at 1 MHz is the same for parts with SRF ≥10 MHz.
3. DCR measured on a micro-ohmmeter.
4. SRF measured using an Agilent/HP 8753ES or equivalent.
5. DC current that causes the specified inductance drop from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

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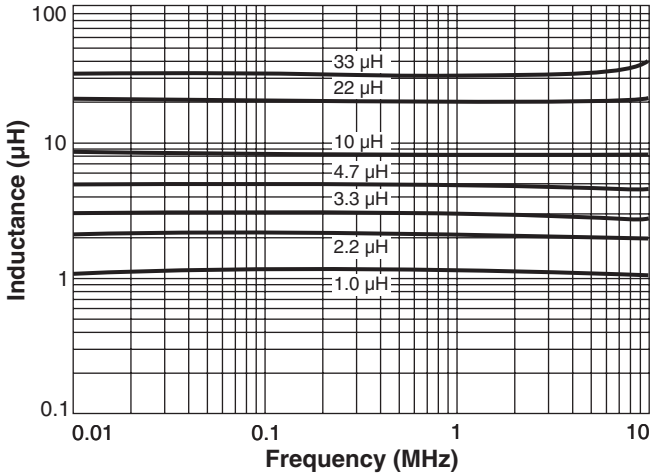
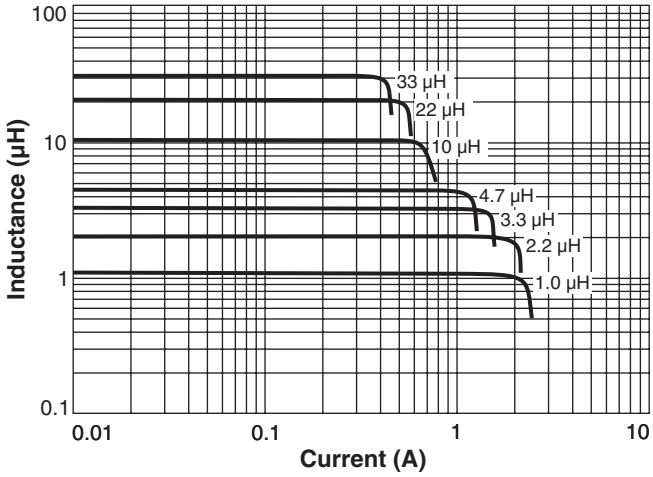
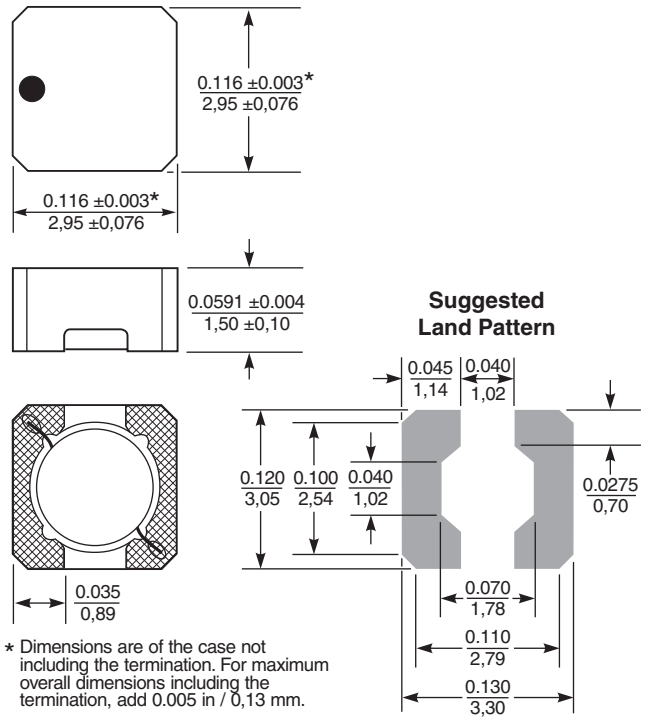
ML412PJB Series (3015)

Typical L vs Frequency



Typical L vs Current





* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0,13 mm.

Dimensions are in inches / mm

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