

PRELIMINARY

High-Reliability Power Inductors ML432PJB



- 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

Weight 102 – 107 mg

Ambient temperature –55°C to +105°C with Irms current, +105°C to +155°C with derated current

Storage temperature Component: –55°C to +155°C.
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, 0.3 mm thick, 8 mm pocket spacing, 1.57 mm pocket depth

Recommended pick and place nozzle OD: 5 mm; ID: ≤ 2.5 mm

Part number ¹	Inductance ² ±20% (µH)	DCR max ³ (Ohms)	SRF (MHz) ⁴		Isat (A) ⁵			Irms (A) ⁶	
			min	typ	10% drop	20% drop	30% drop	20°C rise	40°C rise
ML432PJB102MLZ	1.0	0.050	128	183	3.6	3.8	3.9	1.5	2.1
ML432PJB132MLZ	1.3	0.065	105	150	2.5	2.6	2.8	1.4	1.9
ML432PJB182MLZ	1.8	0.075	89	128	2.6	2.8	2.9	1.2	1.7
ML432PJB222MLZ	2.2	0.090	81	116	2.4	2.6	2.7	1.1	1.6
ML432PJB332MLZ	3.3	0.125	61	88	1.9	2.0	2.0	1.0	1.4
ML432PJB472MLZ	4.7	0.150	51	73	1.6	1.7	1.8	1.0	1.3
ML432PJB562MLZ	5.6	0.175	46	67	1.6	1.6	1.6	0.88	1.2
ML432PJB682MLZ	6.8	0.225	40	57	1.3	1.4	1.5	0.72	1.0
ML432PJB822MLZ	8.2	0.280	34	49	1.3	1.3	1.4	0.68	0.84
ML432PJB103MLZ	10	0.300	31	44	1.2	1.3	1.3	0.64	0.76
ML432PJB123MLZ	12	0.350	28	40	1.0	1.1	1.2	0.60	0.67
ML432PJB153MLZ	15	0.360	27	38	0.80	0.84	0.86	0.58	0.67
ML432PJB183MLZ	18	0.550	24	35	0.75	0.77	0.80	0.56	0.66
ML432PJB223MLZ	22	0.675	22	31	0.70	0.73	0.75	0.48	0.66
ML432PJB333MLZ	33	0.750	17.0	24	0.55	0.59	0.60	0.40	0.56
ML432PJB473MLZ	47	1.00	12.6	18	0.46	0.48	0.49	0.36	0.46
ML432PJB563MLZ	56	1.13	12.0	17	0.40	0.43	0.45	0.32	0.42
ML432PJB683MLZ	68	1.45	10.5	15	0.33	0.38	0.39	0.28	0.38
ML432PJB104MLZ	100	1.95	8.4	12	0.30	0.33	0.34	0.24	0.34
ML432PJB124MLZ	120	2.50	7.0	10	0.25	0.28	0.30	0.22	0.30
ML432PJB154MLZ	150	3.40	6.5	9.3	0.23	0.25	0.26	0.20	0.26
ML432PJB224MLZ	220	4.50	5.1	7.3	0.20	0.21	0.22	0.18	0.23
ML432PJB334MLZ	330	7.40	4.0	5.7	0.15	0.17	0.18	0.14	0.18
ML432PJB474MLZ	470	7.50	3.4	4.9	0.12	0.12	0.13	0.13	0.17
ML432PJB564MLZ	560	8.50	3.0	4.3	0.10	0.11	0.12	0.11	0.15
ML432PJB684MLZ	680	10.6	2.8	4.0	0.10	0.11	0.11	0.10	0.14
ML432PJB105MLZ	1000	15.0	2.2	3.2	0.080	0.090	0.093	0.080	0.12
ML432PJB155MLZ	1500	25.0	1.7	2.5	0.080	0.086	0.088	0.070	0.11
ML432PJB185MLZ	1800	28.0	1.5	2.2	0.078	0.083	0.086	0.070	0.10
ML432PJB225MLZ	2200	36.0	1.5	2.1	0.072	0.078	0.080	0.050	0.070
ML432PJB335MLZ	3300	55.0	1.2	1.7	0.064	0.072	0.076	0.045	0.060
ML432PJB475MLZ	4700	80.0	1.0	1.4	0.062	0.069	0.072	0.035	0.050

1. When ordering, please specify **testing** code:

ML432PJB475MLZ

Testing: Z = COTS

H = Screening per Coilcraft CP-SA-10001

N = Screening per Coilcraft CP-SA-10004

- Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A.
 - DCR measured on a micro-ohmmeter.
 - SRF measured using an Agilent/HP 8753ES or equivalent.
 - Typical DC current that causes the specified inductance drop from its value without current.
 - Typical current that causes the specified temperature rise from 25°C ambient.
 - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Coilcraft CPS
CRITICAL PRODUCTS & SERVICES

These parts are preproduction products for electrical evaluation only.
Specification subject to change without notice.

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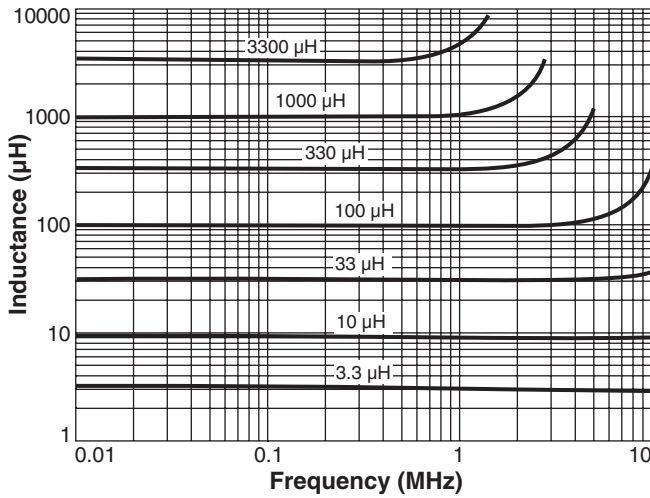
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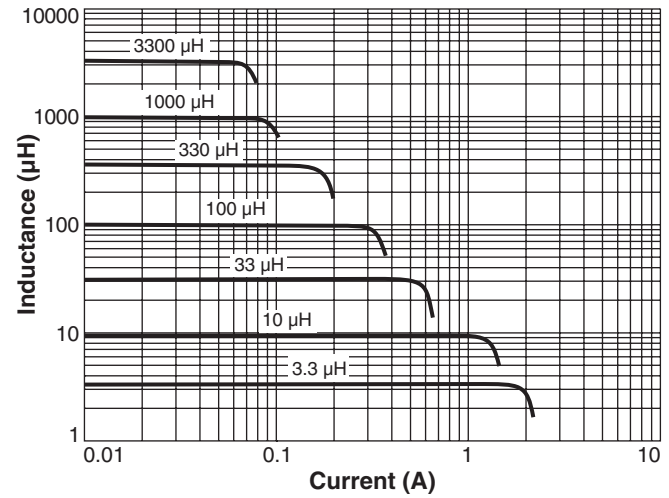
PRELIMINARY

ML432PJB Series (5015)

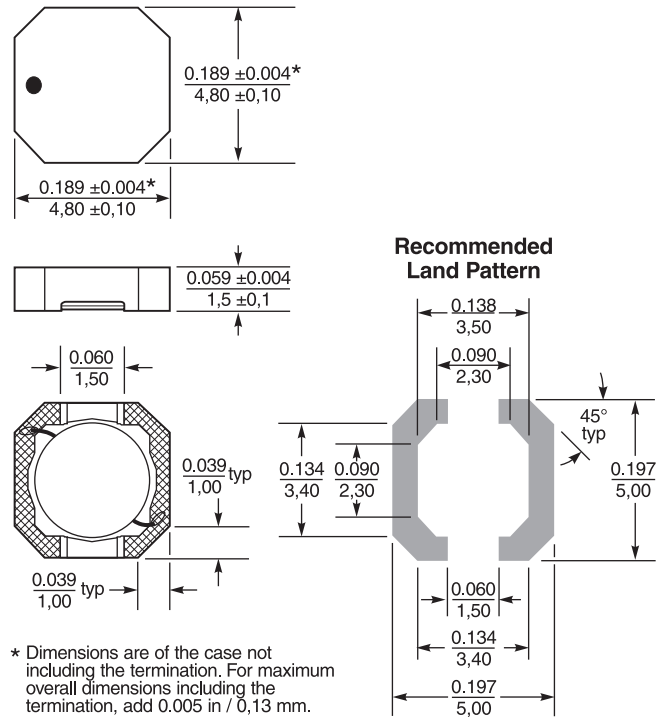
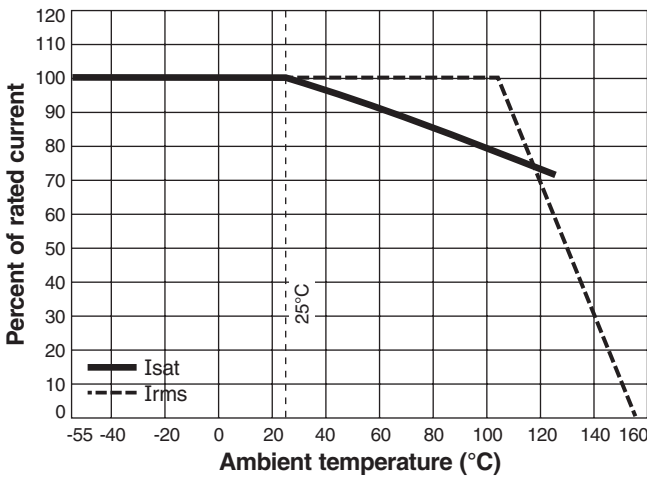
Typical L vs Frequency



Typical L vs Current



Typical Current Derating



* 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 $\frac{\text{inches}}{\text{mm}}$