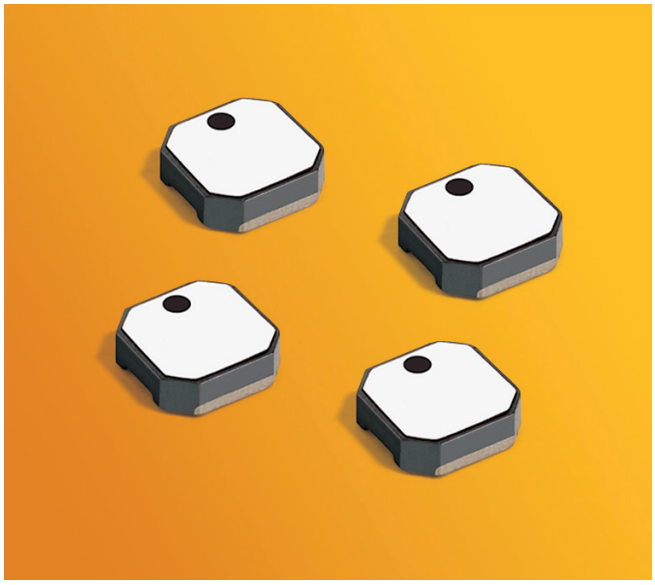
PRELIMINARY

High-Reliability Power Inductors ML427PJB



- 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 82.3 – 89.8 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, 1.52 mm pocket depth

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
ML427PJB301MLZ	0.30	0.040	329	470	5.6	5.7	5.8	1.9	2.6
ML427PJB501MLZ	0.50	0.050	231	330	4.3	4.4	4.5	1.7	2.2
ML427PJB701MLZ	0.70	0.055	157	225	3.7	3.75	3.8	1.5	2.0
ML427PJB102MLZ	1.0	0.060	133	190	3.0	3.1	3.2	1.4	1.8
ML427PJB152MLZ	1.5	0.078	105	150	2.9	3.1	3.2	1.2	1.6
ML427PJB182MLZ	1.8	0.087	91.0	130	2.7	2.8	2.9	1.2	1.5
ML427PJB222MLZ	2.2	0.110	80.0	115	2.2	2.3	2.35	1.0	1.3
ML427PJB332MLZ	3.3	0.165	59.0	85.0	1.8	1.9	1.95	0.92	1.2
ML427PJB472MLZ	4.7	0.215	47.0	68.0	1.4	1.5	1.55	0.72	1.0
ML427PJB562MLZ	5.6	0.260	40.0	58.0	1.4	1.4	1.5	0.60	0.88
ML427PJB682MLZ	6.8	0.270	37.0	54.0	1.2	1.3	1.4	0.56	0.80
ML427PJB822MLZ	8.2	0.350	35.0	50.0	1.1	1.3	1.3	0.56	0.78
ML427PJB103MLZ	10	0.380	30.0	43.0	1.1	1.2	1.3	0.56	0.76
ML427PJB123MLZ	12	0.380	26.0	38.0	0.94	0.97	1.0	0.53	0.70
ML427PJB153MLZ	15	0.440	25.0	36.0	0.85	0.89	0.92	0.50	0.66
ML427PJB183MLZ	18	0.530	21.0	31.0	0.76	0.80	0.82	0.45	0.60
ML427PJB223MLZ	22	0.590	19.0	27.0	0.69	0.72	0.74	0.42	0.54
ML427PJB333MLZ	33	0.715	16.0	23.0	0.47	0.49	0.51	0.39	0.52
ML427PJB473MLZ	47	0.935	12.0	18.0	0.39	0.42	0.43	0.35	0.46
ML427PJB563MLZ	56	1.15	11.0	16.0	0.37	0.39	0.40	0.34	0.43
ML427PJB683MLZ	68	1.35	10.2	14.6	0.32	0.33	0.34	0.29	0.38
ML427PJB104MLZ	100	1.90	7.7	11.0	0.26	0.28	0.285	0.25	0.32
ML427PJB124MLZ	120	2.60	7.0	10.0	0.23	0.24	0.25	0.22	0.27
ML427PJB154MLZ	150	3.10	6.3	9.0	0.22	0.23	0.24	0.19	0.26
ML427PJB224MLZ	220	4.10	4.7	6.7	0.18	0.20	0.20	0.18	0.23
ML427PJB334MLZ	330	6.00	3.9	5.6	0.14	0.16	0.165	0.14	0.18
ML427PJB474MLZ	470	9.50	3.0	4.3	0.13	0.14	0.145	0.11	0.18
ML427PJB564MLZ	560	10.7	2.8	4.0	0.12	0.13	0.14	0.10	0.14
ML427PJB684MLZ	680	11.7	2.4	3.5	0.10	0.11	0.12	0.10	0.14
ML427PJB824MLZ	820	15.1	2.1	3.0	0.10	0.105	0.11	0.090	0.11
ML427PJB105MLZ	1000	16.3	1.8	2.6	0.10	0.102	0.106	0.080	0.10
ML427PJB155MLZ	1500	26.4	1.5	2.2	0.096	0.099	0.100	0.070	0.090
ML427PJB185MLZ	1800	35.0	1.3	1.9	0.089	0.094	0.097	0.060	0.080
ML427PJB225MLZ	2200	42.5	1.3	1.9	0.082	0.089	0.092	0.050	0.070
ML427PJB335MLZ	3300	56.0	0.90	1.3	0.072	0.078	0.083	0.040	0.060

1. When ordering, please specify **testing** code:
   ML427PJB335MLZ
   Testing: Z = COTS
   H = Screening per Coilcraft CP-SA-10001
   N = Screening per Coilcraft CP-SA-10004
   C = Custom screening (please specify when ordering)
2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4192A.
3. DCR measured on a micro-ohmmeter.
4. SRF measured using an Agilent/HP 8753ES or equivalent.
5. Typical DC current that causes the specified inductance drop from its value without current.
6. Typical current that causes the specified temperature rise from 25°C ambient.
7. 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.

Document ML548-1 Revised 12/06/10

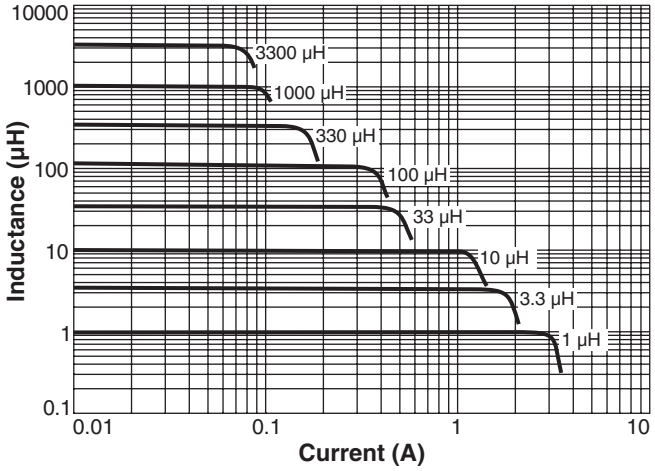
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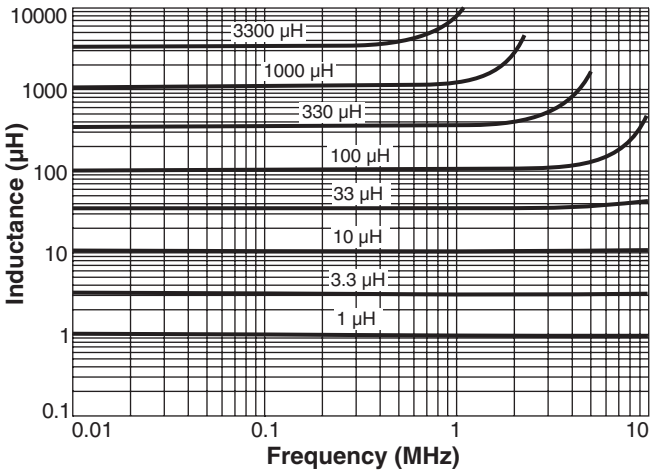
PRELIMINARY

ML427PJB Series (4414)

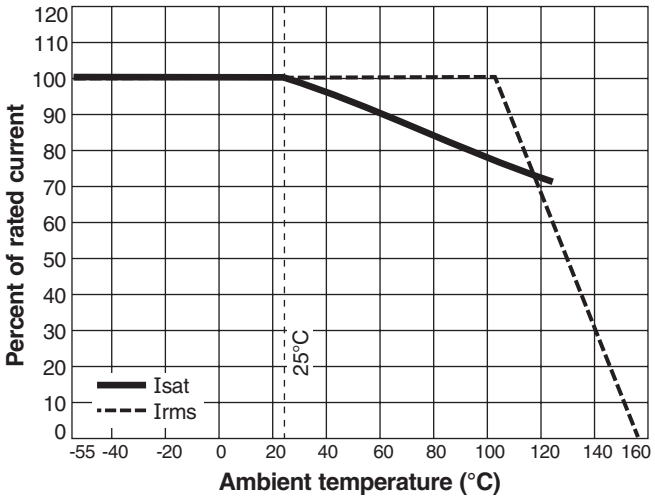
Typical L vs Current

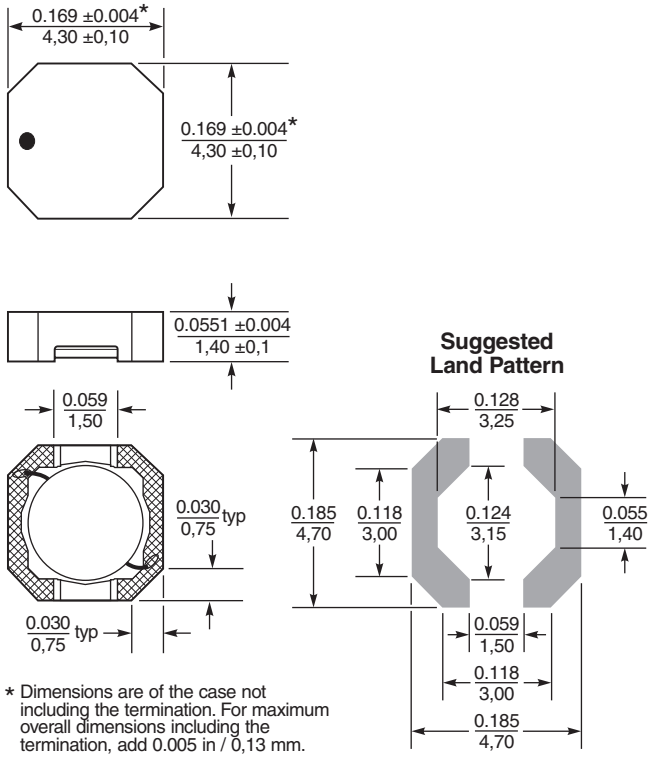


Typical L vs Frequency



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 inches / mm

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Document ML548-2 Revised 12/06/10

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