

**PRELIMINARY**

# High Reliability Power Inductors ML369PJB



- 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** 22 – 25 mg

**Ambient temperature** –55°C to +105°C with I<sub>rms</sub> 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, 0.23 mm thick, 8 mm pocket spacing, 1.37 mm pocket depth

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

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	Inductance typ at 1MHz (µH)	DCR max <sup>3</sup> (Ohms)	SRF (MHz) <sup>4</sup>		Isat <sup>5</sup> (A)	Irms (A) <sup>6</sup>	
				min	typ		20°C rise	40°C rise
ML369PJB561MLZ	0.56	0.56	0.072	231	330	1.8	1.4	2.0
ML369PJB801MLZ	0.80	0.80	0.092	178	255	1.6	1.1	1.6
ML369PJB102MLZ	1.0	1.0	0.125	154	220	1.4	0.90	1.3
ML369PJB152MLZ	1.5	1.5	0.134	119	170	1.15	0.87	1.2
ML369PJB222MLZ	2.2	2.2	0.175	105	150	0.95	0.85	1.1
ML369PJB332MLZ	3.3	3.3	0.285	79.8	114	0.82	0.74	0.95
ML369PJB472MLZ	4.7	4.7	0.350	60.9	87	0.70	0.68	0.80
ML369PJB562MLZ	5.6	5.6	0.450	54.6	78	0.65	0.58	0.73
ML369PJB682MLZ	6.8	6.8	0.500	52.5	75	0.59	0.50	0.67
ML369PJB822MLZ	8.2	8.2	0.600	42.7	61	0.55	0.45	0.60
ML369PJB103MLZ	10	10	0.650	39.2	56	0.49	0.42	0.56
ML369PJB123MLZ	12	12	0.790	34.3	49	0.44	0.38	0.50
ML369PJB183MLZ	18	18	1.25	26.6	38	0.35	0.33	0.44
ML369PJB223MLZ	22	22	1.50	24.5	35	0.30	0.29	0.38
ML369PJB333MLZ	33	33	2.30	16.1	23	0.26	0.25	0.32
ML369PJB473MLZ	47	47	3.00	14.7	21	0.21	0.21	0.27
ML369PJB683MLZ	68	68	4.75	12.6	18	0.18	0.175	0.23
ML369PJB104MLZ	100	100	6.85	9.8	14	0.15	0.160	0.21
ML369PJB124MLZ	120	120	7.00	9.1	13	0.082	0.140	0.190
ML369PJB154MLZ	150	150	8.00	7.7	11	0.080	0.130	0.175
ML369PJB184MLZ	180	180	9.00	7.0	10	0.070	0.120	0.160
ML369PJB224MLZ	220	—	11.5	6.3	9	0.065	0.100	0.145
ML369PJB334MLZ	330	—	18.0	4.9	7	0.057	0.090	0.130

1. When ordering, please specify testing code:

**ML369PJB104MLZ**

**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 V<sub>rms</sub> using an Agilent/HP 4192A or equivalent.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using an Agilent/HP 8753ES or equivalent.

5. Typical DC current at which the inductance drops 10% (typ) 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.



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

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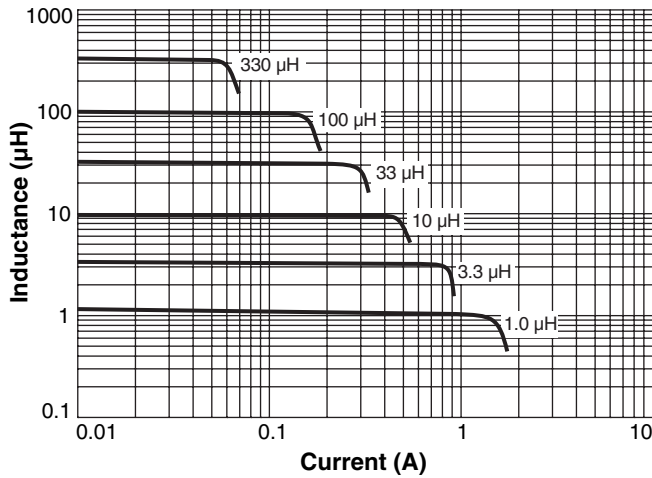
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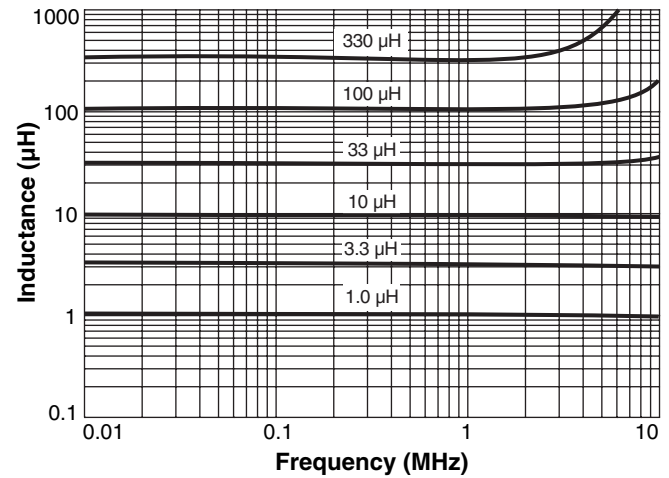
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# ML369PJB Series (3008)

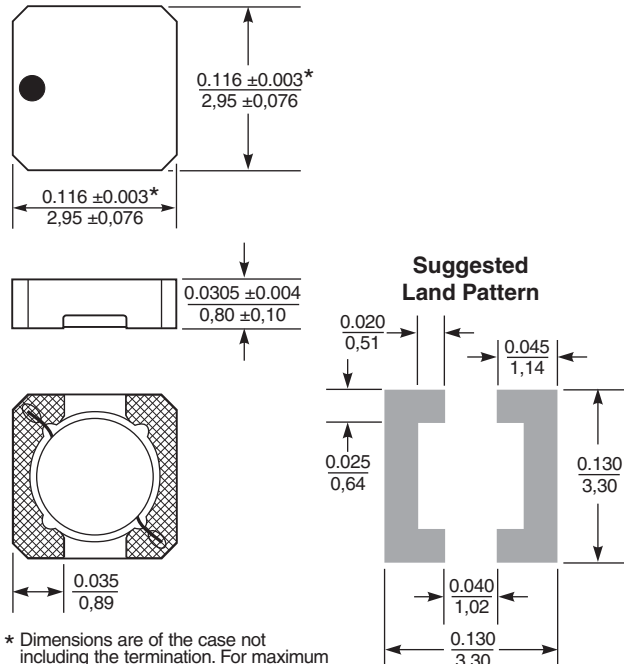
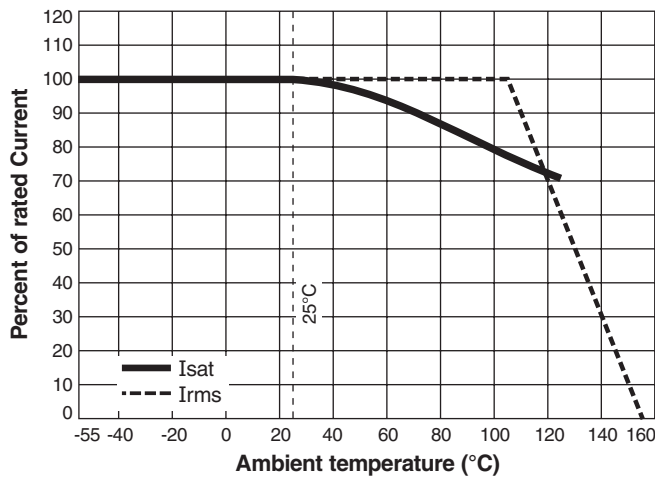
## Typical L vs Current



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