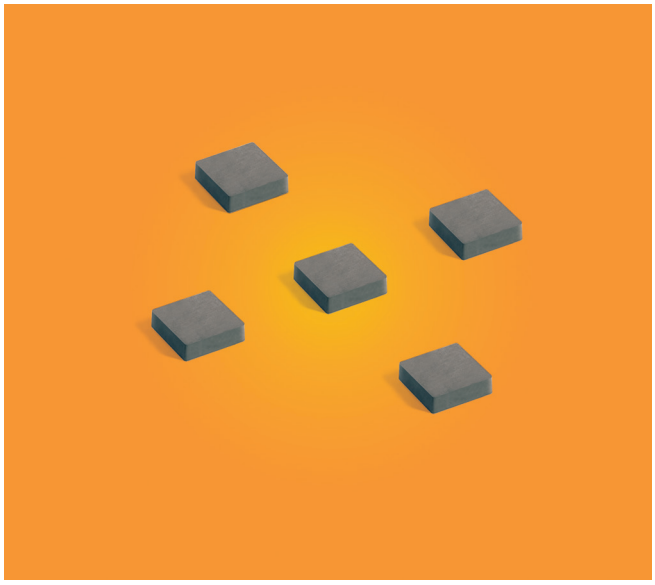
High Reliability Power Inductors MS390PZA



- High temperature materials allow operation in ambient temperatures up to 155°C
- Tin-lead (Sn-Pb) termination for the best possible board adhesion
- Low profile, ultra-miniature, shielded power inductor
- Soft saturation makes them ideal for VRM/VRD applications.

Terminations Tin-lead (63/37) over tin over nickel over silver.

Core material Composite

Weight 44 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. 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 2000/7″reel; 7500/13″ reel Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.14 mm pocket depth

Part number[1]	Inductance[2] ±20% (µH)	DCR (Ohms)[3] typ	DCR (Ohms)[3] max	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
MS390PZA601MSZ	0.60	30	33	144	180	1.8	2.4	2.7	1.8	2.5
MS390PZA102MSZ	1.0	43	49	102	128	1.5	2.1	2.4	1.6	2.3
MS390PZA152MSZ	1.5	71	80	77	97	1.2	1.6	1.9	1.4	1.9
MS390PZA222MSZ	2.2	111	122	62	78	0.94	1.2	1.5	1.0	1.3
MS390PZA332MSZ	3.3	154	166	51	64	0.86	1.1	1.3	0.88	1.2
MS390PZA472MSZ	4.7	217	230	45	57	0.71	0.97	1.1	0.84	1.1

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

MS390PZA222MSZ

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, 0 Adc.
3. DCR measured on a micro-ohmmeter.
4. SRF measured using Agilent/HP 4395A or equivalent.
5. Typical dc current at which the inductance drops the specified amount 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.

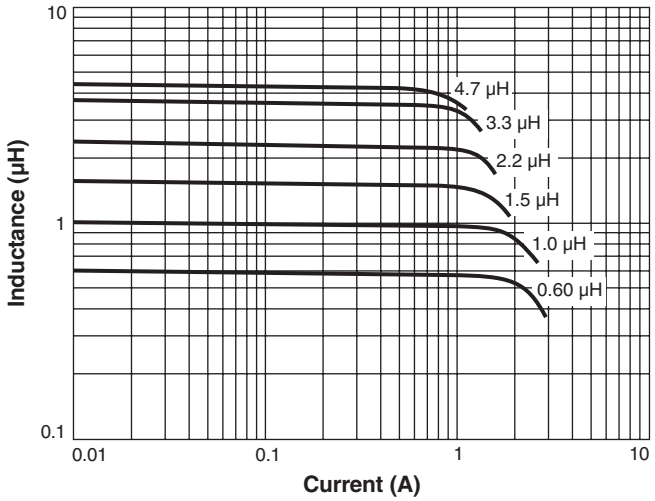
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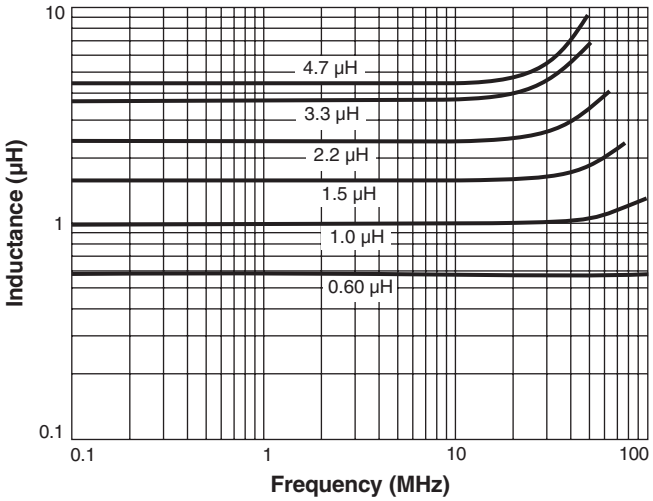
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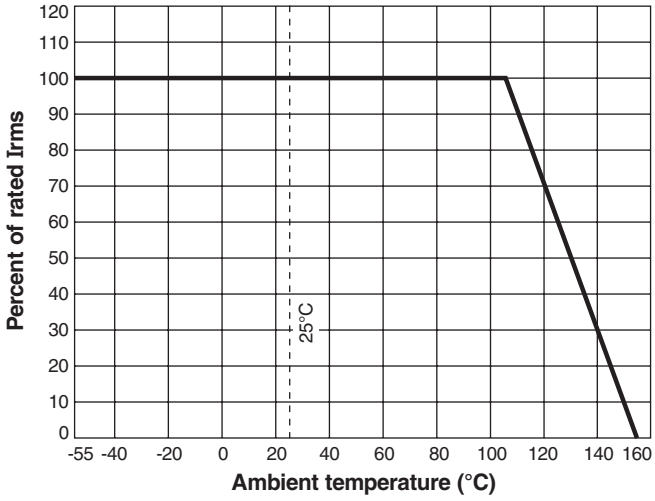
MS390PZA Series

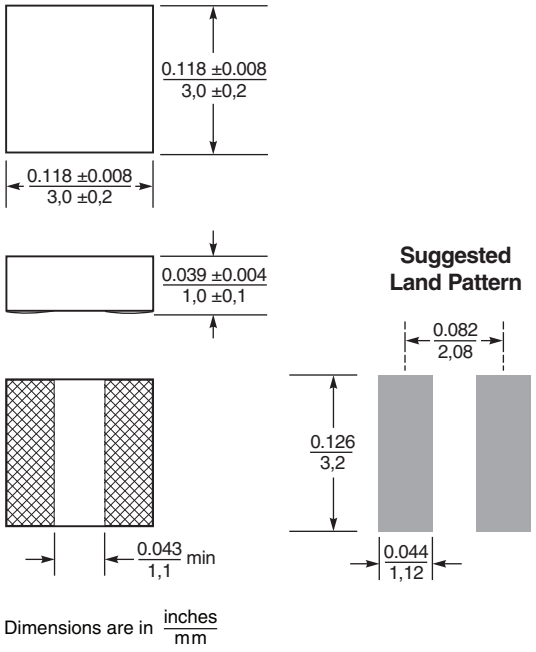
L vs Frequency





Irms Derating





Dimensions are in inches / mm

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