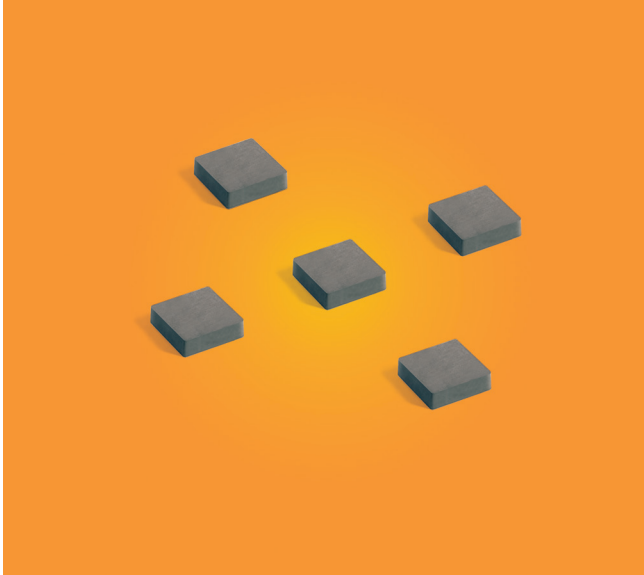


# High Reliability Power Inductors ML390PZA



- High temperature materials allow operation in ambient temperatures up to 155°C
- Low profile, ultra-miniature, shielded power inductor
- Soft saturation makes them ideal for VRM/VRD applications.

**Terminations** Tin-silver-copper 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 <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR (Ohms) <sup>3</sup>		SRF (MHz) <sup>4</sup>		Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
		typ	max	min	typ	10% drop	20% drop	30% drop	20°C rise	40°C rise
ML390PZA601MLZ	0.60	30	33	144	180	1.8	2.4	2.7	1.8	2.5
ML390PZA102MLZ	1.0	43	49	102	128	1.5	2.1	2.4	1.6	2.3
ML390PZA152MLZ	1.5	71	80	77	97	1.2	1.6	1.9	1.4	1.9
ML390PZA222MLZ	2.2	111	122	62	78	0.94	1.2	1.5	1.0	1.3
ML390PZA332MLZ	3.3	154	166	51	64	0.86	1.1	1.3	0.88	1.2
ML390PZA472MLZ	4.7	217	230	45	57	0.71	0.97	1.1	0.84	1.1

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

**ML390PZA222MLZ**

**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.

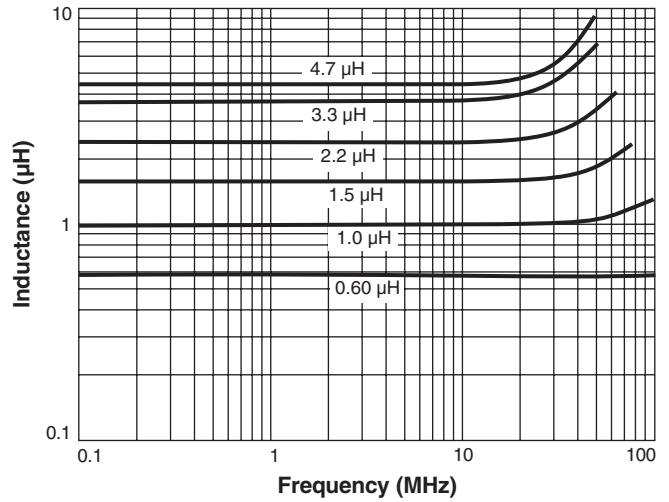
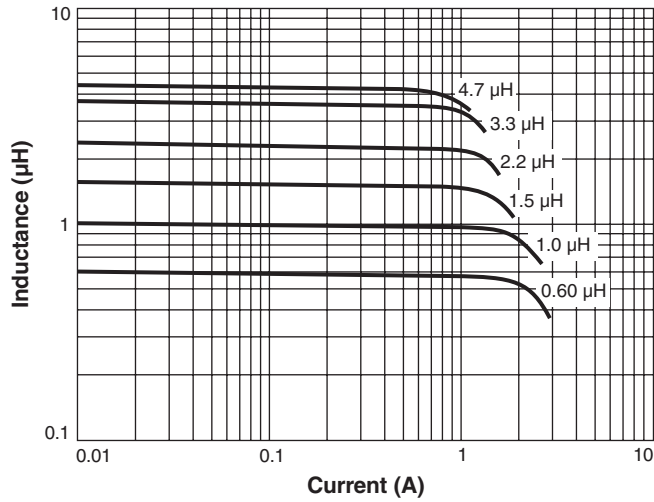
6. Typical current that causes the specified temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

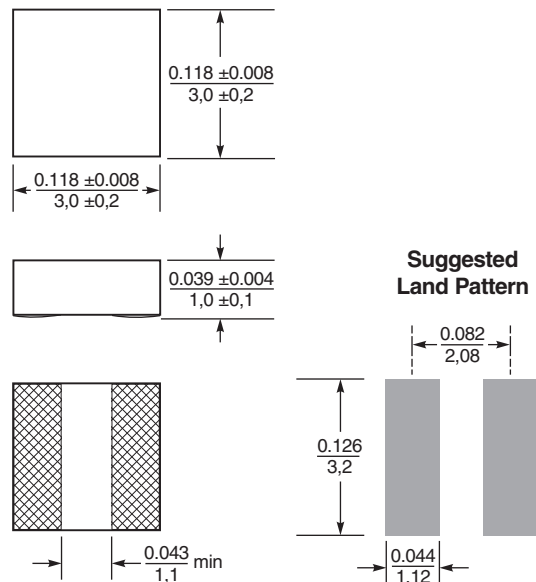
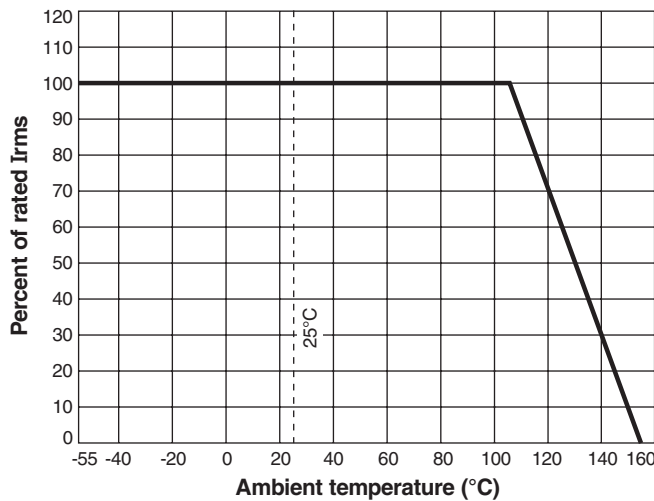
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

# ML390PZA Series

## L vs Frequency



## Irms Derating



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$