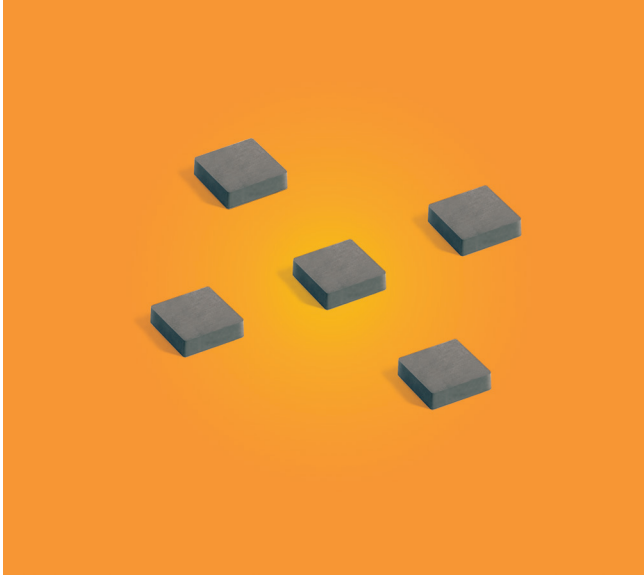


# High Reliability Power Inductors MS390PZA



- 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

**Maximum part temperature** +155°C (ambient + temp rise)

**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  
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 (mOhms) <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
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** = Unscreened

**H** = Group A screening per Coilcraft CP-SA-10001

All screening performed to the document's latest revision

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc.

3. DCR measured on a micro-ohmmeter.

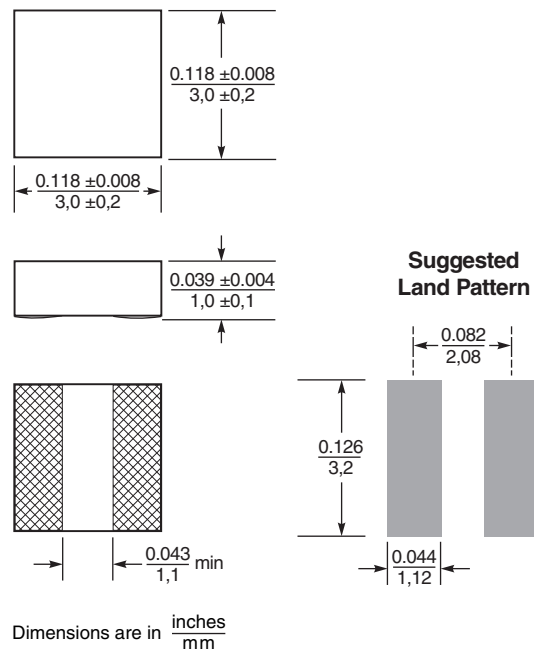
4. SRF measured using Agilent/HP 4395A or equivalent.

5. DC current at 25°C that causes the specified inductance drop from its value without current.

6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

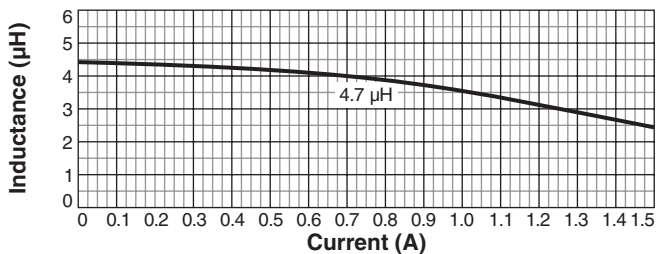
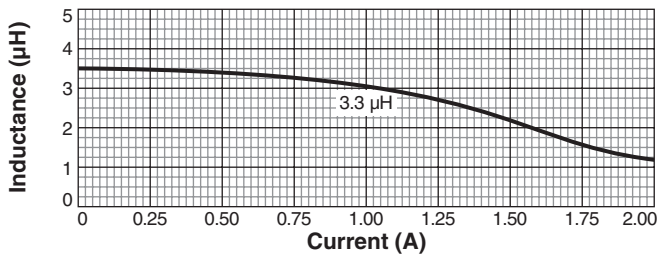
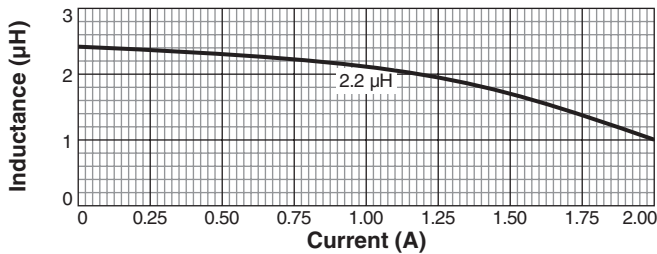
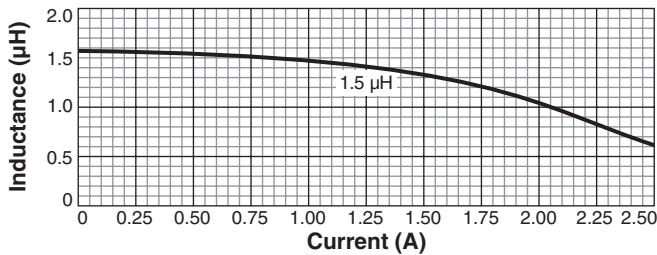
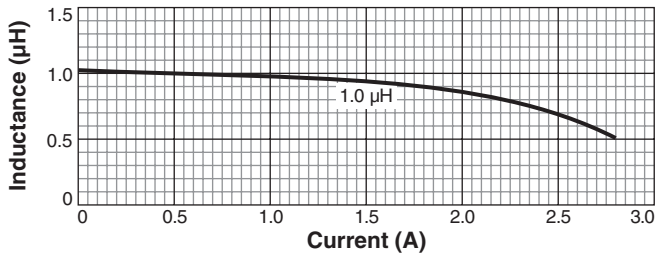
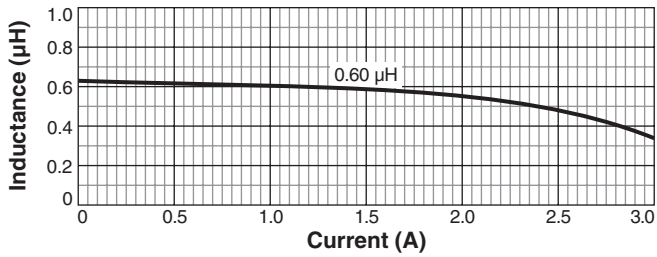
7. Electrical specifications at 25°C.

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

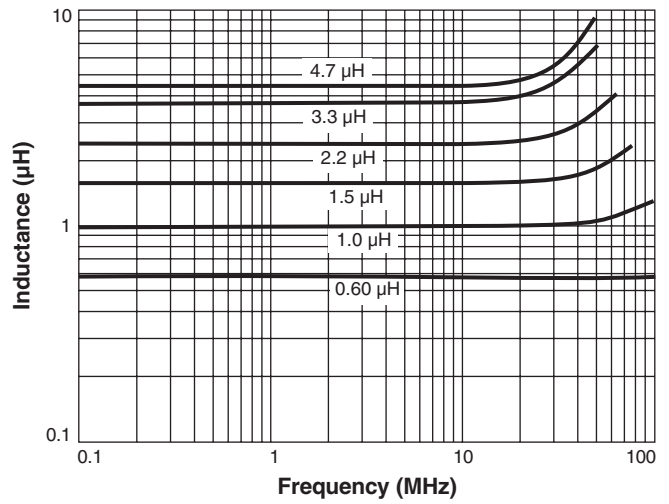


# MS390PZA Series

## L vs Current



## L vs Frequency



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Document MS727-2 Revised 05/22/17

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.