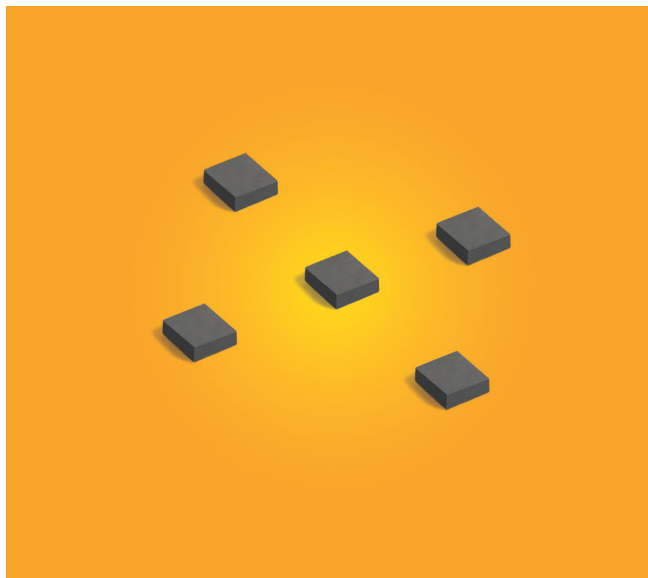


High-Reliability Power Inductors ML319PZA



- High temperature material allows operation in ambient temperatures up to 155°C
- Lowest profile, ultra-miniature, magnetically shielded power inductor; only 0.5 mm high, 2 mm × 2 mm footprint
- Soft saturation makes them ideal for VRM/VRD applications.
- Special construction allows it to pass vibration testing to 80 G and shock testing to 1000 G.

Core material Composite

Terminations Tin-silver-copper (96.5/3/0.5) over tin over nickel over silver-platinum.

Weight 11.4 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, 0.28 mm thick, 4 mm pocket spacing, 0.76 mm pocket depth

| Part number ¹ | Inductance ² ±20% (µH) | DCR (Ohms) ³ | | SRF typ ⁴ (MHz) | Isat (A) ⁵ | | | Irms (A) ⁶ | |
|--------------------------|--------------------------------------|-------------------------|-------|-------------------------------|-----------------------|----------|----------|-----------------------|-----------|
| | | nom | max | | 10% drop | 20% drop | 30% drop | 20°C rise | 40°C rise |
| ML319PZA151MLZ | 0.15 | 0.085 | 0.098 | 590 | 1.05 | 1.55 | 1.90 | 1.25 | 1.60 |
| ML319PZA221MLZ | 0.22 | 0.111 | 0.128 | 480 | 0.72 | 1.20 | 1.50 | 1.13 | 1.48 |
| ML319PZA331MLZ | 0.33 | 0.144 | 0.166 | 380 | 0.65 | 1.05 | 1.30 | 1.00 | 1.30 |
| ML319PZA471MLZ | 0.47 | 0.177 | 0.204 | 275 | 0.60 | 0.97 | 1.20 | 0.95 | 1.25 |
| ML319PZA681MLZ | 0.68 | 0.215 | 0.247 | 220 | 0.50 | 0.75 | 0.95 | 0.80 | 1.05 |

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

ML319PZA681MLZ

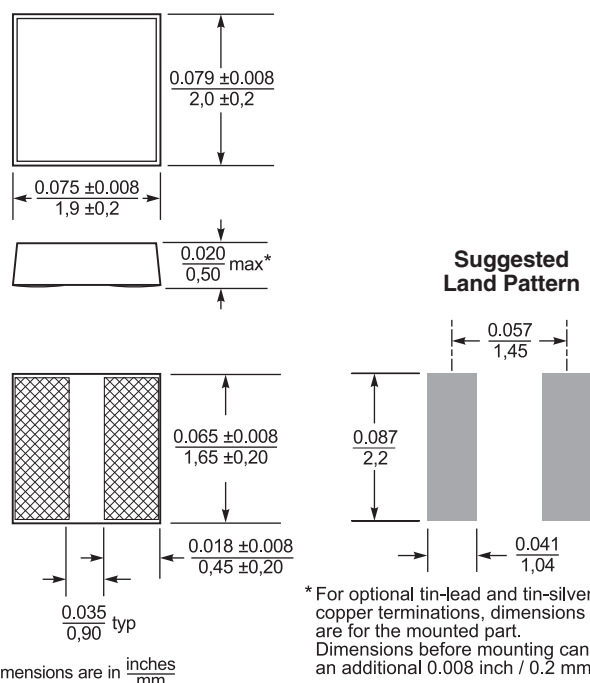
Testing: Z = Unscreened

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

All screening performed to the document's latest revision

- Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc.
- DCR measured on a micro-ohmmeter.
- SRF measured using Agilent/HP 4395A or equivalent.
- DC current at 25°C that causes the specified inductance drop from its value without current.
- Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
- Electrical specifications at 25°C.

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



Coilcraft CPS

CRITICAL PRODUCTS & SERVICES

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1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

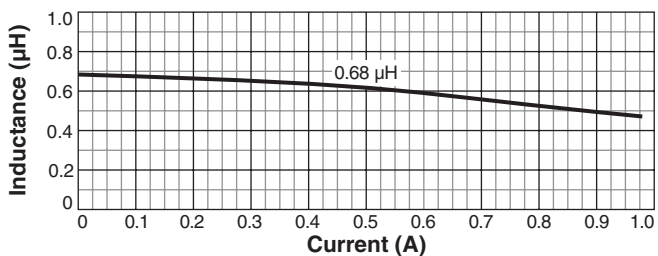
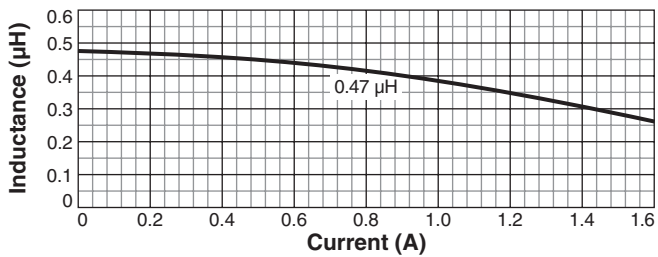
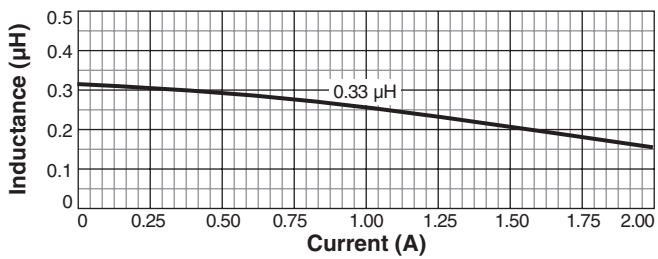
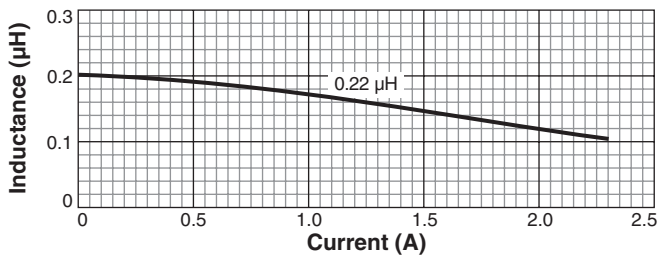
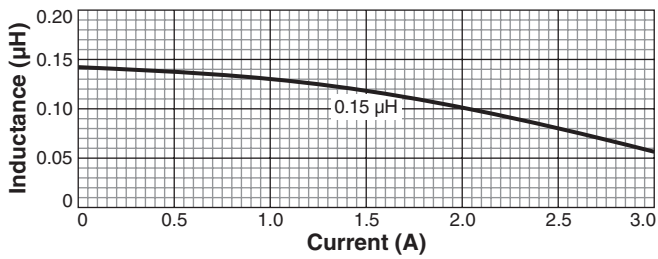
Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document ML779-1 Revised 09/04/19

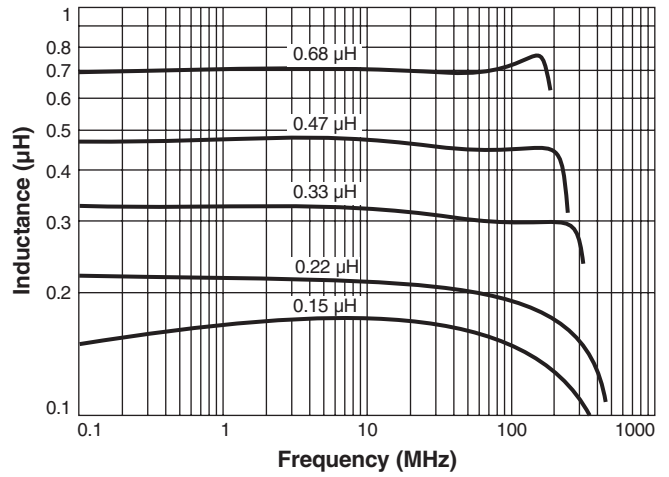
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

ML319PZA Series (2005)

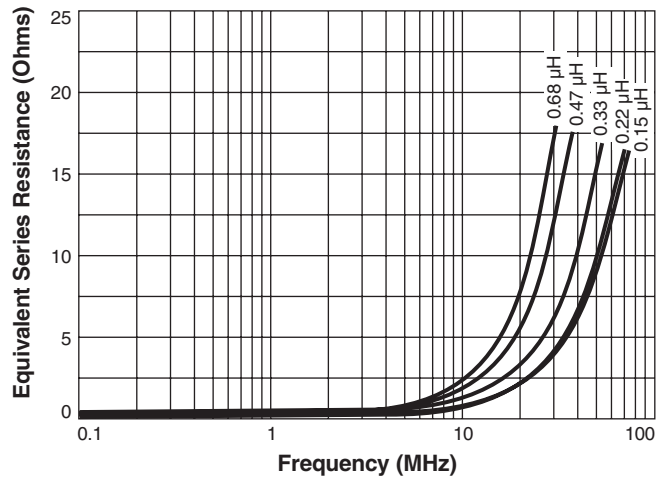
L vs Current



L vs Frequency



ESR vs Frequency



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1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

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Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document ML779-2 Revised 09/04/19

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