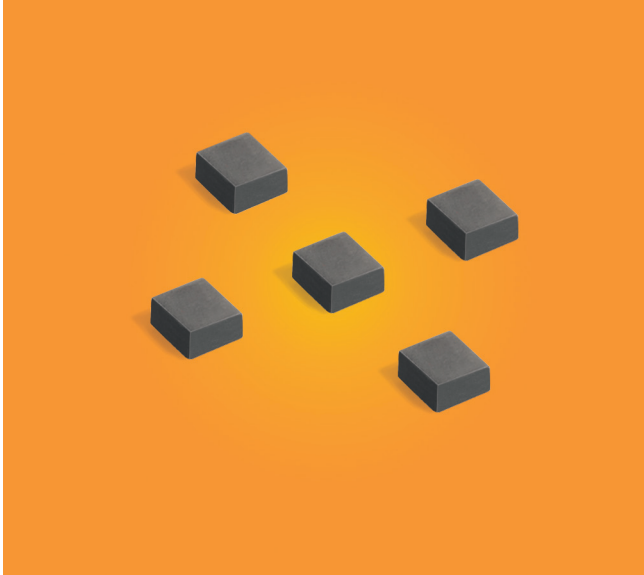


High Reliability Power Inductors MS410PZA



- 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 53 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, 1.25 mm pocket depth

| Part number ¹ | Inductance ² ±20% (µH) | DCR (Ohms) ³ | | SRF (MHz) ⁴ | | Isat (A) ⁵ | | | Irms (A) ⁶ | |
|--------------------------|--------------------------------------|-------------------------|-----|------------------------|------|-----------------------|----------|----------|-----------------------|-----------|
| | | typ | max | min | typ | 10% drop | 20% drop | 30% drop | 20°C rise | 40°C rise |
| MS410PZA221MSZ | 0.22 | 14 | 19 | 272 | 340 | 2.5 | 3.5 | 4.1 | 2.6 | 3.5 |
| MS410PZA361MSZ | 0.36 | 19 | 23 | 168 | 210 | 2.3 | 3.1 | 3.5 | 2.2 | 3.0 |
| MS410PZA601MSZ | 0.60 | 23 | 29 | 133 | 167 | 1.9 | 2.6 | 3.0 | 2.1 | 2.8 |
| MS410PZA102MSZ | 1.0 | 35 | 42 | 92.0 | 115 | 1.6 | 2.2 | 2.5 | 1.9 | 2.6 |
| MS410PZA152MSZ | 1.5 | 60 | 72 | 75.5 | 94.4 | 1.3 | 1.8 | 2.2 | 1.6 | 2.2 |
| MS410PZA222MSZ | 2.2 | 81 | 97 | 58.5 | 73.2 | 1.0 | 1.3 | 1.6 | 1.4 | 1.9 |
| MS410PZA332MSZ | 3.3 | 106 | 127 | 49.3 | 61.6 | 0.87 | 1.2 | 1.4 | 1.2 | 1.6 |
| MS410PZA472MSZ | 4.7 | 143 | 171 | 42.1 | 52.6 | 0.72 | 1.0 | 1.2 | 1.0 | 1.4 |

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

MS410PZA472MSZ

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.

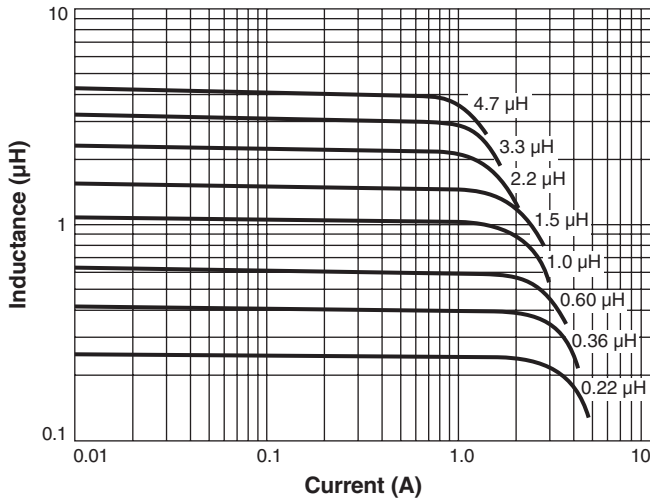
6. Typical current that causes the specified temperature rise from 25°C ambient.

7. Electrical specifications at 25°C.

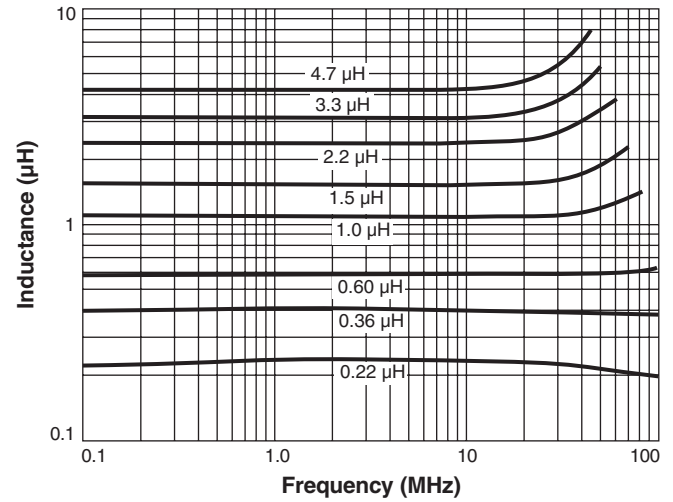
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

MS410PZA Series

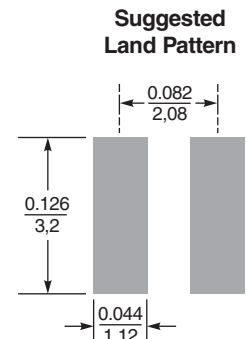
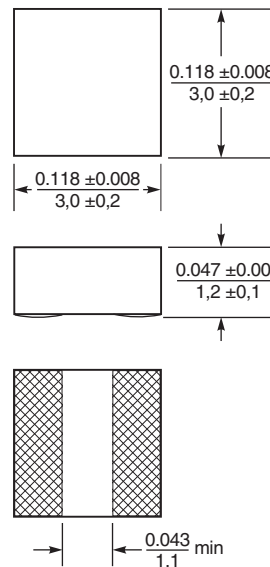
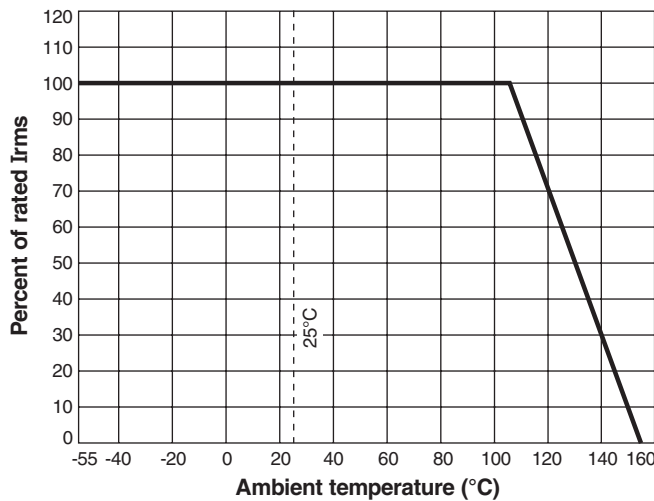
L vs Current



L vs Frequency



Irms Derating



Dimensions are in inches/mm