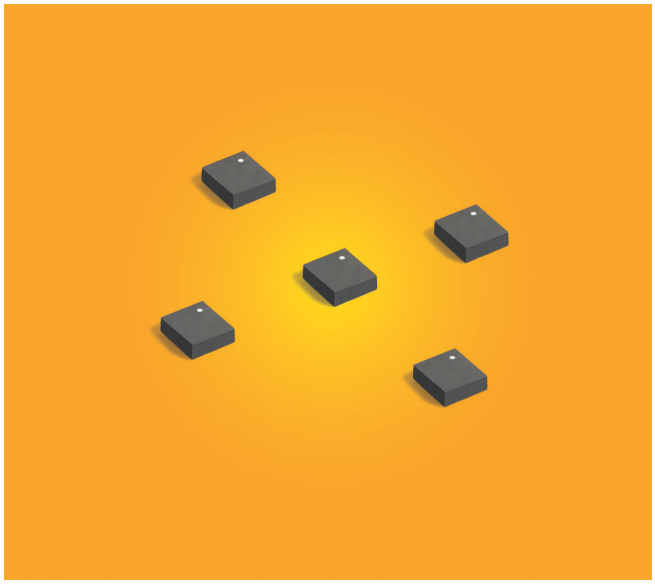
High Reliability Power Inductors MS322PZA



- High temperature materials allow operation in ambient temperatures up to 155°C
- Tin-lead (Sn-Pb) termination for the best possible board adhesion
- Lowest profile, ultra-miniature, shielded power inductor
- 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.

Terminations Tin-lead (63/37) over copper.
Core material Composite
Weight 9 – 13 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] 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
MS322PZA102MSZ	1.0	0.153	0.169	136	170	0.71	1.0	1.2	0.910	1.22
MS322PZA222MSZ	2.2	0.278	0.306	88	110	0.49	0.69	0.78	0.710	0.950
MS322PZA332MSZ	3.3	0.460	0.506	70	88	0.42	0.56	0.66	0.550	0.720
MS322PZA472MSZ	4.7	0.665	0.732	54	68	0.31	0.44	0.52	0.500	0.660
MS322PZA562MSZ	5.6	0.75	0.825	49	61	0.30	0.43	0.50	0.460	0.600
MS322PZA682MSZ	6.8	0.92	1.02	45	57	0.26	0.35	0.41	0.400	0.520
MS322PZA822MSZ	8.2	1.08	1.19	41	51	0.24	0.33	0.39	0.370	0.490
MS322PZA103MSZ	10.0	1.27	1.40	36	45	0.24	0.31	0.37	0.345	0.440
MS322PZA153MSZ	15.0	2.02	2.22	29.6	37	0.19	0.25	0.29	0.265	0.350
MS322PZA223MSZ	22.0	2.78	3.06	24.4	30.5	0.150	0.205	0.240	0.235	0.305
MS322PZA333MSZ	33.0	4.45	4.90	19.2	24.0	0.110	0.150	0.180	0.160	0.205
MS322PZA473MSZ	47.0	5.60	6.16	15.6	19.5	0.090	0.130	0.155	0.155	0.205
MS322PZA563MSZ	56.0	6.65	7.32	13.2	16.5	0.085	0.120	0.145	0.145	0.195
MS322PZA683MSZ	68.0	8.50	9.35	12.8	16.0	0.080	0.115	0.135	0.115	0.155
MS322PZA823MSZ	82.0	9.25	10.18	10.8	13.5	0.065	0.090	0.115	0.125	0.165
MS322PZA104MSZ	100.0	11.10	12.25	10.4	13.0	0.065	0.090	0.115	0.100	0.135

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

MS322PZA104MSZ

Screening:
Z = Unscreened
Y = Unscreened (SLDC Option A)
W = Unscreened (SLDC Option B)
H = Group A screening per Coilcraft CP-SA-10001
G = Coilcraft CP-SA-10001 Group A (SLDC Option A)
D = Coilcraft CP-SA-10001 Group A (SLDC Option B)
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.

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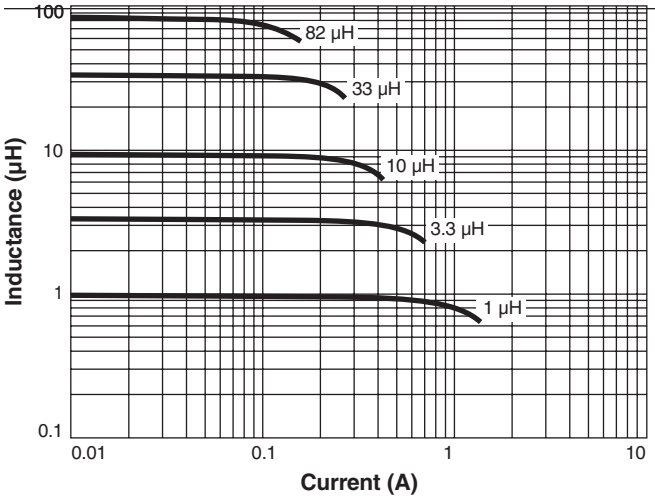
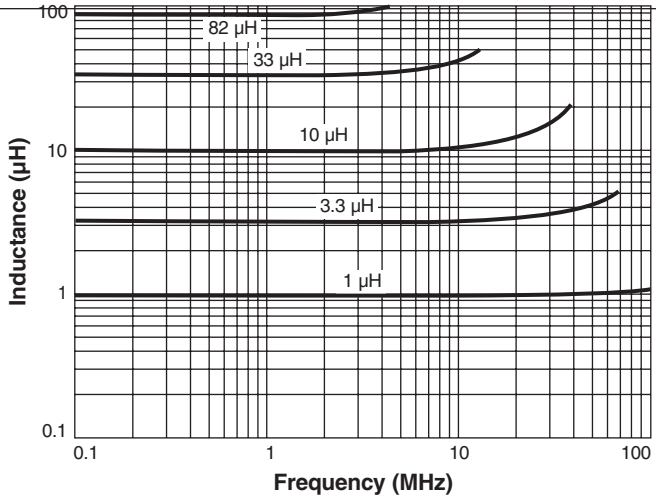
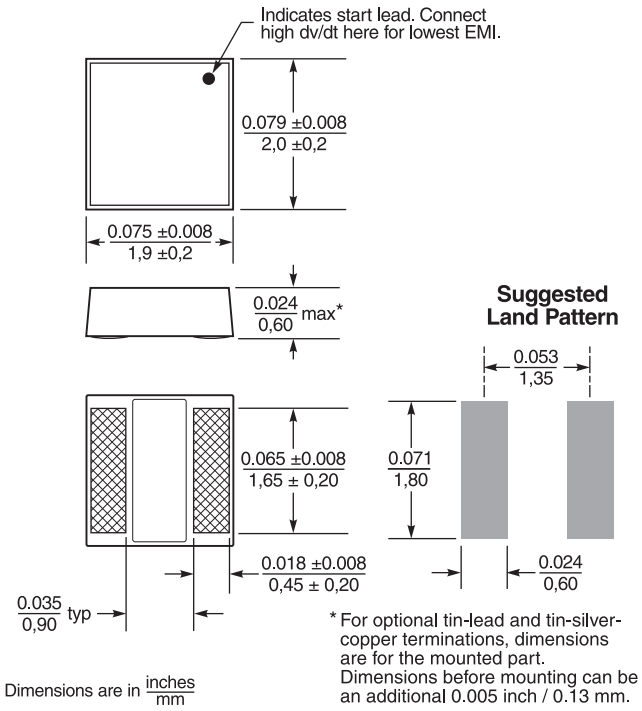
MS322PZA Series

Typical L vs Current

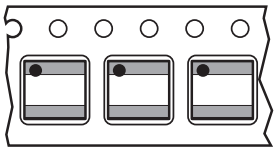


Typical L vs Frequency





Tape and reel orientation



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