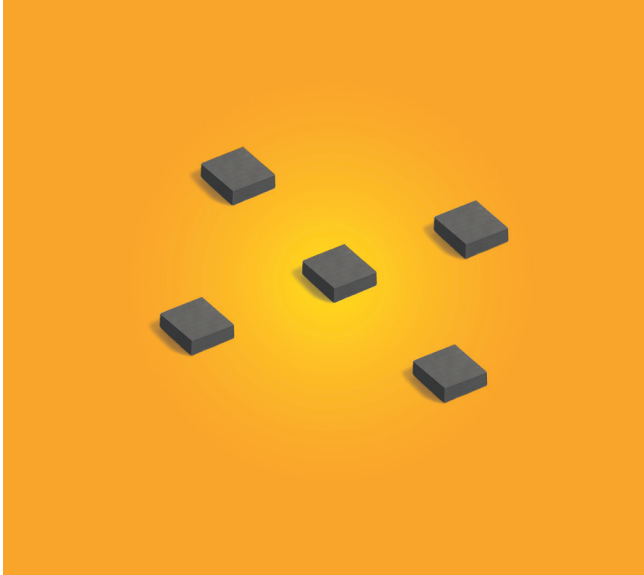


High Reliability Power Inductors ML322PZA



- High temperature materials allow operation in ambient temperatures up to 155°C
- 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-silver over copper

Core material Composite

Weight 12 – 13 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, 0.28 mm thick, 4 mm pocket spacing, 0.76 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
ML322PZA102MLZ	1.0	0.153	0.169	136	170	0.71	1.0	1.2	0.910	1.22
ML322PZA222MLZ	2.2	0.278	0.306	88	110	0.49	0.69	0.78	0.710	0.950
ML322PZA332MLZ	3.3	0.460	0.506	70	88	0.42	0.56	0.66	0.550	0.720
ML322PZA472MLZ	4.7	0.665	0.732	54	68	0.31	0.44	0.52	0.500	0.660
ML322PZA562MLZ	5.6	0.75	0.825	49	61	0.30	0.43	0.50	0.460	0.600
ML322PZA682MLZ	6.8	0.92	1.02	45	57	0.26	0.35	0.41	0.400	0.520
ML322PZA822MLZ	8.2	1.08	1.19	41	51	0.24	0.33	0.39	0.370	0.490
ML322PZA103MLZ	10.0	1.27	1.40	36	45	0.24	0.31	0.37	0.345	0.440
ML322PZA153MLZ	15.0	2.02	2.22	29.6	37	0.19	0.25	0.29	0.265	0.350
ML322PZA223MLZ	22.0	2.78	3.06	24.4	30.5	0.150	0.205	0.240	0.235	0.305
ML322PZA333MLZ	33.0	4.45	4.90	19.2	24.0	0.110	0.150	0.180	0.160	0.205
ML322PZA473MLZ	47.0	5.60	6.16	15.6	19.5	0.090	0.130	0.155	0.155	0.205
ML322PZA563MLZ	56.0	6.65	7.32	13.2	16.5	0.085	0.120	0.145	0.145	0.195
ML322PZA683MLZ	68.0	8.50	9.35	12.8	16.0	0.080	0.115	0.135	0.115	0.155
ML322PZA823MLZ	82.0	9.25	10.18	10.8	13.5	0.065	0.090	0.115	0.125	0.165
ML322PZA104MLZ	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 **testing** code:

ML322PZA222MLZ

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.

Coilcraft CPS
CRITICAL PRODUCTS & SERVICES

Specifications subject to change without notice.
Please check our website for latest information.

Document ML763-1 Revised 01/07/11

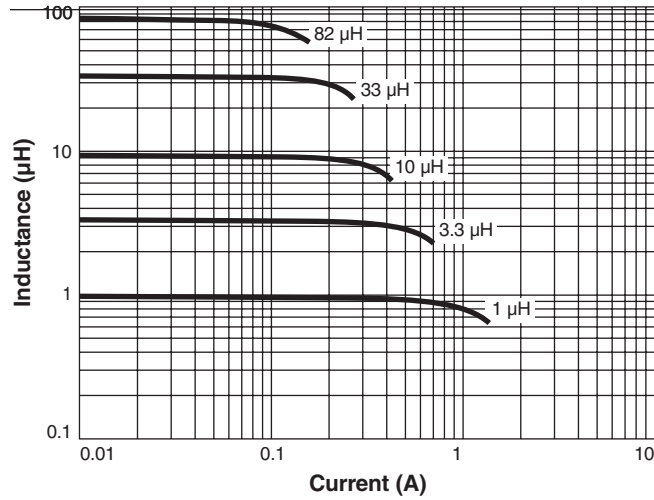
1102 Silver Lake Road
Cary IL 60013

Phone 800-981-0363
Fax 847-639-1508

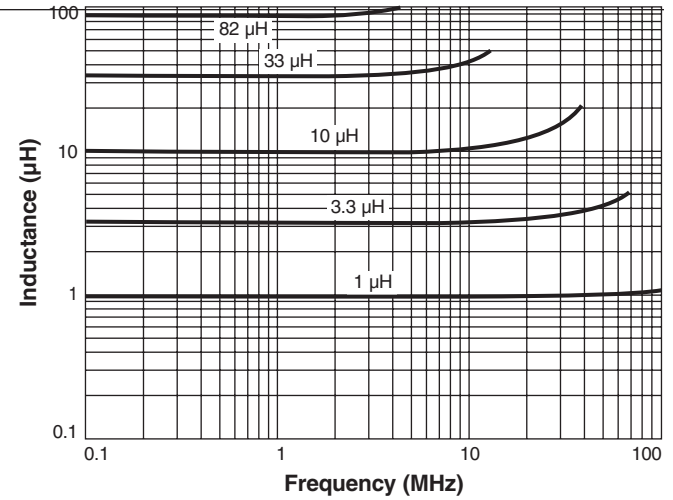
E-mail cps@coilcraft.com
Web www.coilcraft-cps.com

ML322PZA Series

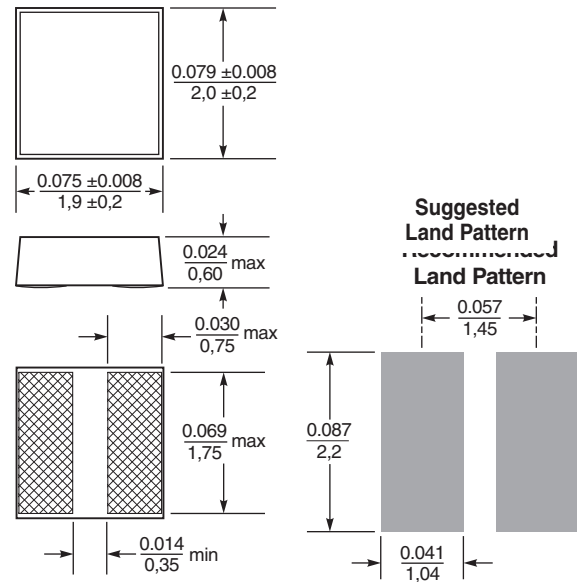
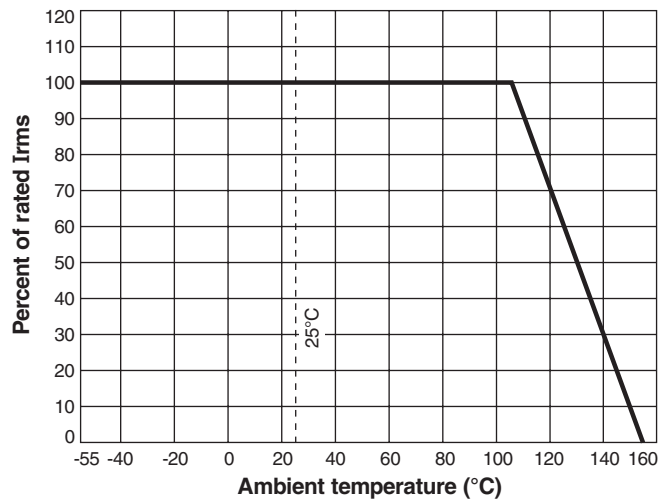
Typical L vs Current



Typical L vs Frequency



Irms Derating



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