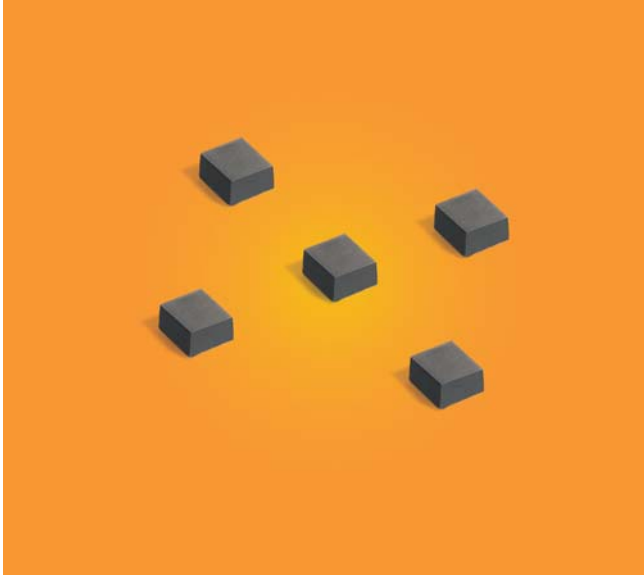


PRELIMINARY

High-Reliability Power Inductors ML338PWA



- High temperature materials allow operation in ambient temperatures up to 155°C
- Very low DCR and excellent current handling.
- Soft saturation makes them ideal for VRM/VRD applications.

Weight 20 mg

Terminations RoHS compliant tin-silver-copper over tin over nickel over silver.

Ambient temperature -55°C to +105°C with I_{rms} current, +105°C to +155°C with derated current

Storage temperature Component: -55°C to +155°C.
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 1000/7" reel
Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.19 mm pocket depth

Part number ¹	Inductance ² ±20% (µH)	DCR (Ohms) ³		SRF (MHz) ⁴		Isat (A) ⁵			Irms (A) ⁶	
		nom	max	min	typ	10% drop	20% drop	30% drop	20°C rise	40°C rise
ML338PWA201MLZ	0.20	0.024	0.027	286	408	2.80	3.45	3.75	2.2	2.8
ML338PWA331MLZ	0.33	0.031	0.035	216	309	1.90	2.75	3.05	1.9	2.6
ML338PWA501MLZ	0.50	0.040	0.045	153	218	1.80	2.35	2.64	1.7	2.3
ML338PWA681MLZ	0.68	0.057	0.063	106	152	1.55	1.95	2.19	1.5	2.1
ML338PWA821MLZ	0.82	0.068	0.075	93	132	1.25	1.65	1.90	1.3	1.7
ML338PWA102MLZ	1.0	0.081	0.089	82	117	1.20	1.60	1.80	1.1	1.6
ML338PWA152MLZ	1.5	0.105	0.116	56	80	0.950	1.30	1.50	1.0	1.4
ML338PWA222MLZ	2.2	0.156	0.173	53	75	0.940	1.20	1.35	0.96	1.3
ML338PWA332MLZ	3.3	0.207	0.228	39	55	0.700	0.925	1.05	0.79	1.1
ML338PWA472MLZ	4.7	0.336	0.370	28	40	0.580	0.750	0.845	0.74	1.0
ML338PWA682MLZ	6.8	0.421	0.463	23	33	0.450	0.620	0.725	0.64	0.87
ML338PWA822MLZ	8.2	0.457	0.503	21	30	0.440	0.600	0.670	0.55	0.75
ML338PWA103MLZ	10	0.555	0.611	20	28	0.390	0.525	0.610	0.49	0.66
ML338PWA104MLZ	100	8.48	9.27	7.7	11	0.180	0.214	0.232	0.13	0.17
ML338PWA224MLZ	220	19.2	21.1	5.0	7.1	0.122	0.143	0.161	0.086	0.116

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

ML338PWA224MLZ

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 V_{rms}, 0 Adc.

3. DCR measured on a micro-ohmmeter.

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

5. DC current at which the inductance drops the specified amount from its value without current.

6. 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

These parts are preproduction products for electrical evaluation only.
Specifications subject to change without notice.

Document ML646-1 Revised 03/29/10

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Cary IL 60013

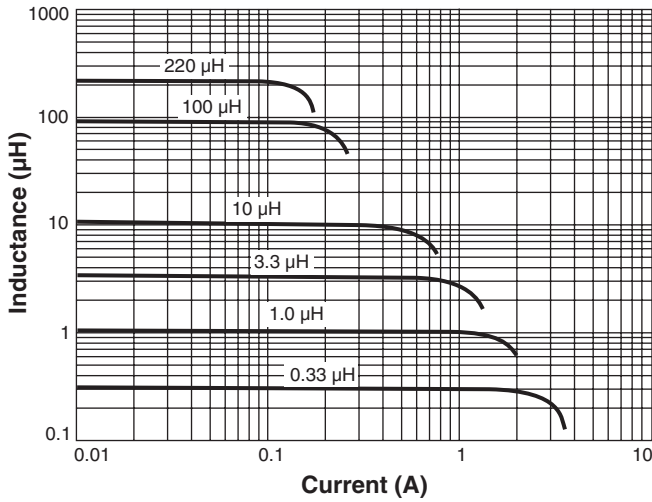
Phone 800-981-0363
Fax 847-639-1508

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

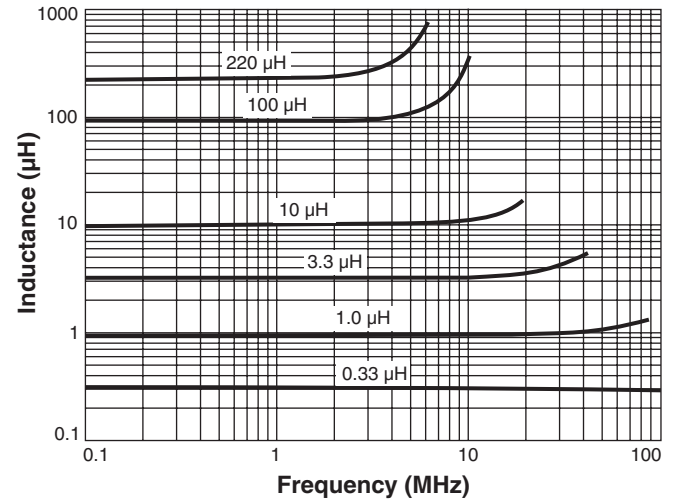
PRELIMINARY

ML338PWA Series

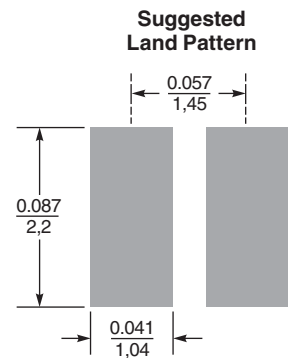
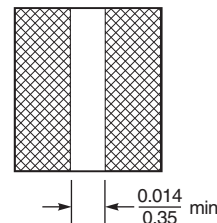
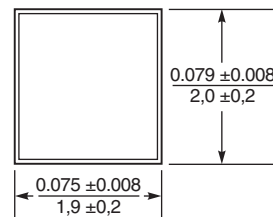
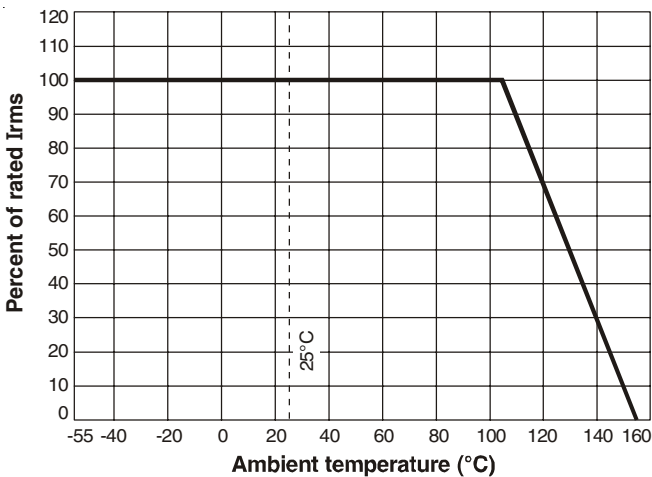
Typical L vs Current



Typical L vs Frequency



Irms Derating



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