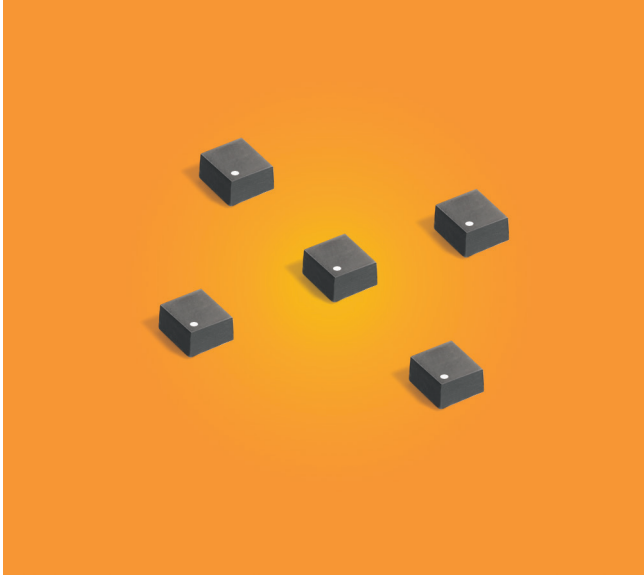


High-Reliability Power Inductors ML338PWA



- 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.
- Special construction allows it to pass vibration testing to 30 G and shock testing to 500 G.

Weight 22 mg

Terminations Tin-silver-copper over tin over nickel over silver.

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.
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, 0.23 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	175	250	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

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

ML338PWA224MLZ

Testing:

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.

Coilcraft CPS

CRITICAL PRODUCTS & SERVICES

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Cary, IL 60013
Phone 800-981-0363

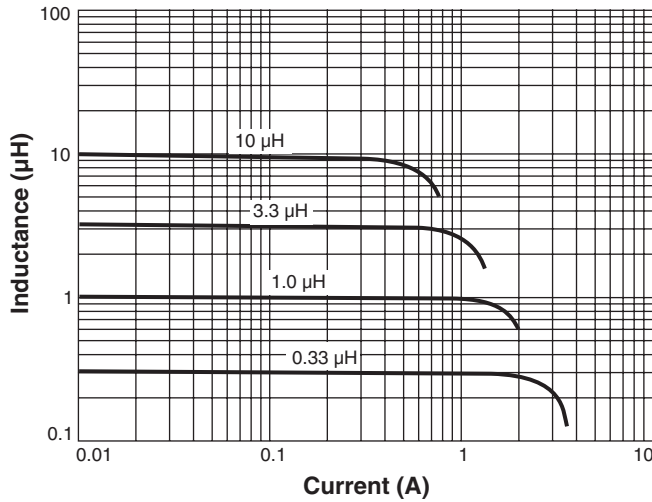
Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document ML646-1 Revised 12/03/24

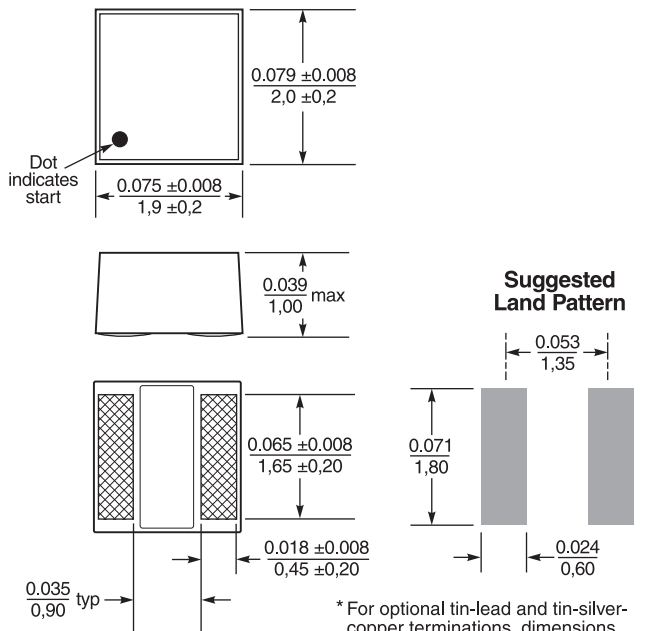
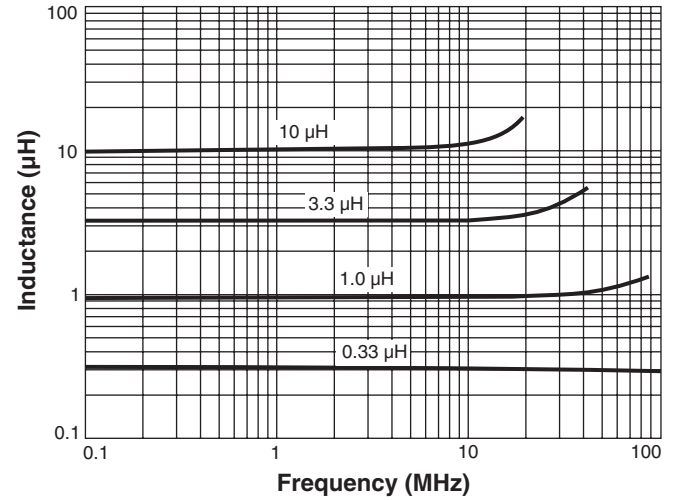
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

ML338PWA Series

Typical L vs Current



Typical L vs Frequency



* For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0.13 mm.

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



CRITICAL PRODUCTS & SERVICES

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