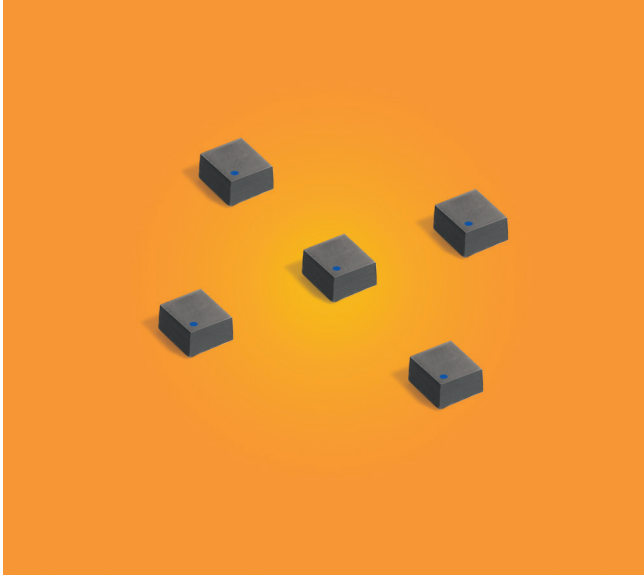


NEW!

Outgassing Compliant Power Inductors AE338PZA



- High temperature materials allow operation in ambient temperatures up to 155°C
- Passes NASA low outgassing specifications
- Very low DCR and excellent current handling.
- Soft saturation makes them ideal for VRM/VRD applications.
- Tin-lead (Sn-Pb) termination for the best possible board adhesion
- Special construction allows it to pass vibration testing to 30 G and shock testing to 500 G.

Weight 22 mg

Working voltage 40 V

Terminations Tin-lead (63/37) over tin over nickel over silver-platinum

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.

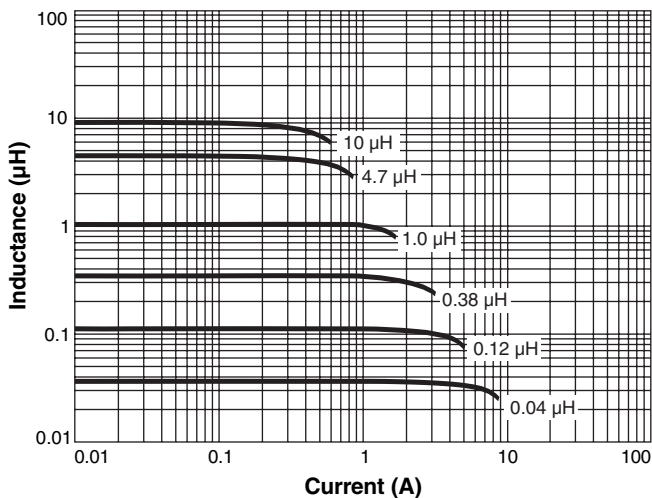
Tape and reel packaging: -55°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

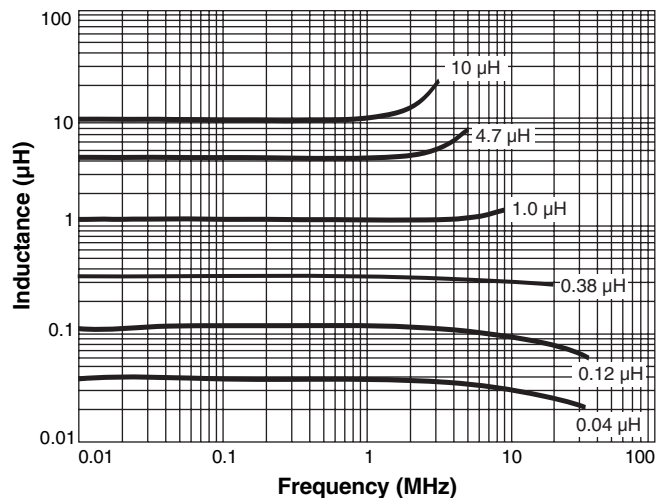
Packaging 1000/7" reel Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.19 mm pocket depth

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Typical L vs Current



Typical L vs Frequency



Coilcraft CPS

CRITICAL PRODUCTS & SERVICES

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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.

Shielded Power Inductors – AE338PZA Series

Part number ¹	Inductance ² ±20% (µH)	DCR (Ohms) ³		SRF typ ⁴ (MHz)	Isat (A) ⁵			Irms (A) ⁶	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
AE338PZA400MP_	0.04	0.012	0.016	2200	5.50	7.50	8.60	3.40	4.80
AE338PZA121MP_	0.12	0.017	0.022	730	3.00	4.25	4.90	2.70	3.70
AE338PZA221MP_	0.22	0.020	0.025	400	2.10	3.20	3.75	2.30	3.10
AE338PZA381MP_	0.38	0.028	0.033	280	1.70	2.50	3.05	2.10	2.85
AE338PZA601MP_	0.60	0.047	0.054	200	1.30	1.95	2.32	1.75	2.35
AE338PZA821MP_	0.82	0.052	0.061	160	1.05	1.52	1.95	1.60	2.15
AE338PZA102MP_	1.0	0.072	0.083	130	0.95	1.42	1.68	1.30	1.80
AE338PZA152MP_	1.5	0.100	0.115	110	0.75	1.16	1.45	1.15	1.55
AE338PZA222MP_	2.2	0.136	0.156	90	0.70	1.06	1.25	1.00	1.35
AE338PZA332MP_	3.3	0.185	0.213	65	0.60	0.85	1.00	0.88	1.20
AE338PZA472MP_	4.7	0.278	0.320	60	0.42	0.64	0.78	0.68	0.91
AE338PZA682MP_	6.8	0.352	0.405	50	0.39	0.61	0.72	0.58	0.79
AE338PZA822MP_	8.2	0.445	0.511	40	0.38	0.55	0.62	0.56	0.76
AE338PZA103MP_	10	0.517	0.595	36	0.29	0.45	0.56	0.51	0.67

1. When ordering, please specify **termination** and **screening** codes:

AE338PZA103MPZ

Termination: P = Tin-lead (63/37) over tin over nickel over silver-platinum

Q = Tin-silver-copper (96.5/3/0.5) over tin over nickel over silver-platinum.

Screening: Z = Unscreened

H = Coilcraft CP-SA-10001 Group A

G = Coilcraft CP-SA-10001 Group A (SLDC Option A)

D = Coilcraft CP-SA-10001 Group A (SLDC Option B)

1 = EEE-INST-002 (Family 1) Level 1

2 = EEE-INST-002 (Family 1) Level 2

3 = EEE-INST-002 (Family 1) Level 3

4 = MIL-STD-981 (Family 04) Class B

5 = MIL-STD-981 (Family 04) Class S

F = ESCC3201 (F4 operational life performed at 105°C)

• Screening performed to the document's latest revision.

• Lot qualification (Group B) available.

• Testing T and U have been replaced with more detailed codes 4, 5, and 1, 2, 3, respectively. Codes T and U can still be used, if necessary. Custom testing also available.

• Country of origin restrictions available; prefix options G.

2. Inductance tested at 1 MHz, 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.

