

Outgassing Compliant Power Inductors AE528PJB



- High temperature materials allow operation in ambient temperatures up to 155°C.
- Passes NASA low outgassing specifications
- Special construction allows it to pass vibration testing to 30 G and shock testing to 100 G
- Tin-lead (Sn-Pb) termination for the best possible board adhesion

Core material Ferrite

Terminations Tin Lead (63/37) over tin over nickel

Weight 0.82 – 1.25 g

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 350/7" reel

Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 3.68 mm pocket depth

Recommended pick and place nozzle OD: 6.2 mm; ID: ≤ 3.1 mm

Part number ¹	Inductance ² ± 20% (µH)	DCR (Ohms)		SRF (MHz)		Isat (A) ³			Irms (A) ⁴	
		typ	max	typ	min	10% drop	20% drop	30% drop	20°C rise	40°C rise
AE528PJB682MS_	6.8	0.059	0.075	63	53	3.6	3.9	4.0	1.80	2.40
AE528PJB103MS_	10	0.073	0.090	49	41	2.8	3.2	3.3	1.55	2.15
AE528PJB153MS_	15	0.092	0.110	23	27	2.5	2.7	2.7	1.35	1.85
AE528PJB223MS_	22	0.102	0.130	21	17	2.0	2.3	2.4	1.25	1.75
AE528PJB333MS_	33	0.121	0.145	12	10	1.8	2.0	2.1	1.20	1.60
AE528PJB473MS_	47	0.153	0.179	10	8.5	1.6	1.7	1.8	1.10	1.50
AE528PJB683MS_	68	0.193	0.223	8.7	7.4	1.2	1.3	1.4	0.95	1.35
AE528PJB104MS_	100	0.297	0.342	6.5	5.5	1.0	1.1	1.1	0.78	1.10
AE528PJB154MS_	150	0.379	0.442	5.0	4.2	0.88	0.93	0.95	0.70	0.95
AE528PJB224MS_	220	0.564	0.662	4.3	3.6	0.70	0.74	0.77	0.60	0.82
AE528PJB334MS_	330	0.834	0.950	3.0	2.5	0.52	0.58	0.61	0.48	0.65
AE528PJB474MS_	470	1.28	1.45	2.5	2.1	0.43	0.48	0.50	0.39	0.53
AE528PJB684MS_	680	1.88	2.23	2.2	1.8	0.33	0.39	0.43	0.32	0.44
AE528PJB105MS_	1000	2.92	3.22	1.3	1.1	0.31	0.34	0.36	0.23	0.32

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

AE528PJB105MSZ

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 or F.

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc.

3. DC current at 25°C that causes the specified inductance drop from its value without current.

4. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

5. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

Coilcraft CPS

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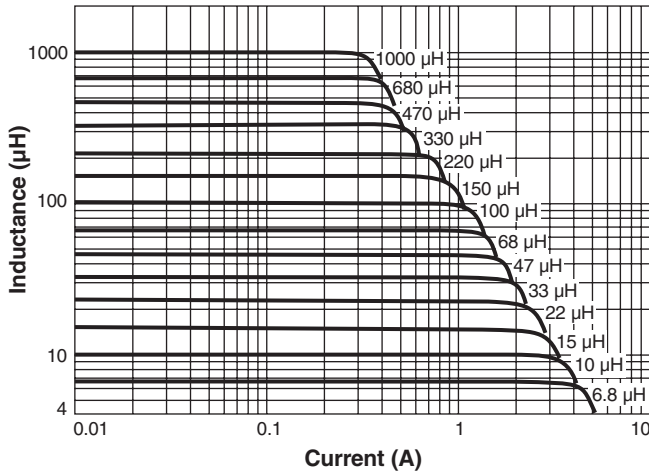
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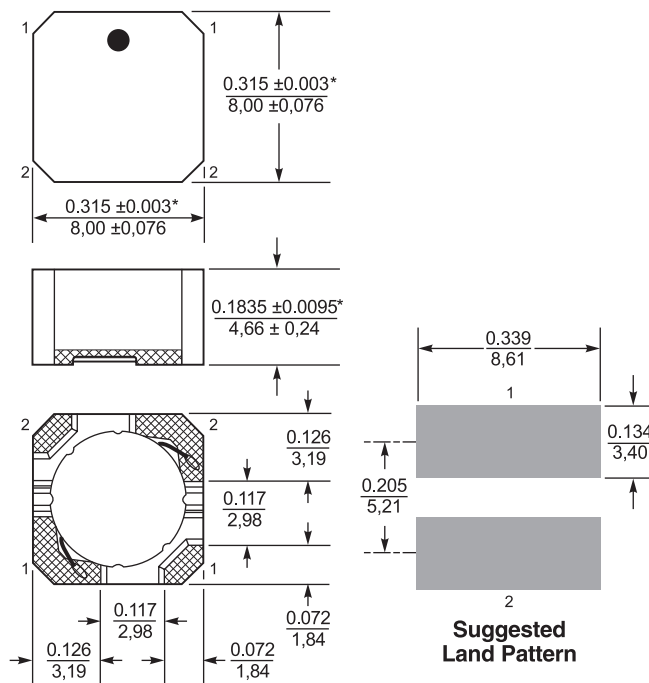
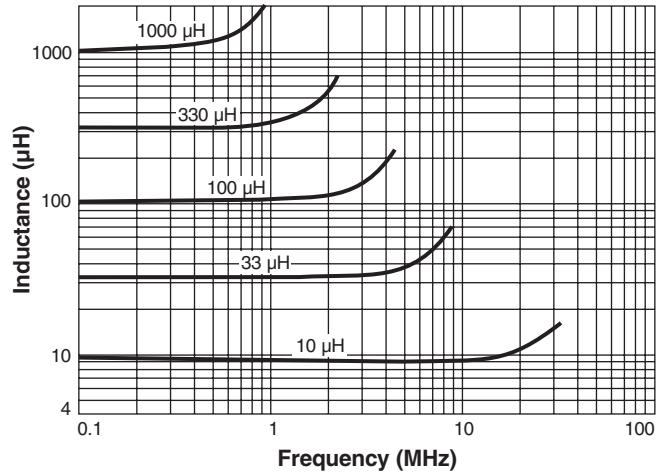
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

AE528PJB Series (8045)

L vs Current



Typical L vs Frequency



* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.026 in / 0.66 mm for length and width, and 0.005 in / 0.13 mm for height.

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

