

Outgassing Compliant Power Inductors AE566PNB



- High current, low DCR shielded power inductors
- Passes NASA low outgassing specifications
- High temperature materials allow operation in ambient temperatures up to 155°C.
- Tin-lead (Sn-Pb) terminations for the best possible board adhesion

Core material Ferrite

Terminations Tin-lead (63/37) over tin over nickel over phos bronze.

Weight: 2.3 g – 2.5 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.

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 200/7" reel

Plastic tape: 24 mm wide, 0.35 mm thick, 16 mm pocket spacing, 4.7mm pocket depth

Part number ¹	Inductance ² (µH)	DCR ³ (mOhms)		SRF ⁴ (MHz)		Isat (A) ⁵			Irms (A) ⁶	
		typ	max	min	typ	10% drop	20% drop	30% drop	20°C rise	40°C rise
AE566PNB102MSZ	1.0±20%	5.6	6.3	70.0	100	18.14	20.64	22.24	6.00	8.00
AE566PNB152MSZ	1.5±20%	8.7	9.7	60.0	85.0	14.06	15.90	17.08	5.80	7.80
AE566PNB272MSZ	2.7±20%	10.3	11.5	49.0	70.0	11.66	13.16	14.16	5.00	6.80
AE566PNB332MSZ	3.3±20%	15.1	16.8	46.0	65.0	9.74	11.08	11.98	4.50	6.30
AE566PNB472MSZ	4.7±20%	19.1	21.3	30.0	42.0	8.62	9.70	10.42	4.40	6.00
AE566PNB562MSZ	5.6±20%	22.1	24.6	26.0	37.0	7.62	8.74	9.44	3.95	5.75
AE566PNB682MSZ	6.8±20%	24.9	27.7	23.0	33.0	7.38	8.36	9.00	3.70	5.20
AE566PNB822MSZ	8.2±20%	27.4	30.5	22.0	31.0	6.84	7.70	8.32	3.35	4.67
AE566PNB103MSZ	10±20%	36.8	40.9	19.0	27.0	5.88	6.66	7.18	2.85	3.90
AE566PNB123MSZ	12±20%	38.9	43.3	17.0	24.0	5.34	6.04	6.52	2.69	3.65
AE566PNB153MSZ	15±20%	48.6	54.1	15.0	22.0	4.68	5.36	5.78	2.50	3.40
AE566PNB183MSZ	18±20%	51.0	56.7	13.0	19.0	4.32	4.92	5.32	2.41	3.19
AE566PNB223MSZ	22±20%	60.3	67.0	12.6	18.0	3.84	4.34	4.75	2.30	3.14
AE566PNB273MSZ	27±20%	67.5	75.0	11.2	16.0	3.54	4.02	4.32	2.06	2.86
AE566PNB333MSZ	33±20%	81.7	90.8	10.5	15.0	3.24	3.66	3.96	1.90	2.60
AE566PNB393MSZ	39±20%	95.2	105.8	9.3	13.3	3.04	3.46	3.72	1.73	2.39
AE566PNB473MSZ	47±20%	120.6	134.0	8.4	12.0	2.70	3.08	3.34	1.50	2.10
AE566PNB563MSZ	56±20%	133.8	148.7	7.4	10.6	2.46	2.80	3.02	1.44	2.01
AE566PNB683MSZ	68±20%	167.3	185.9	6.8	9.7	2.26	2.54	2.74	1.30	1.80
AE566PNB823MSZ	82±20%	188.5	209.5	6.2	8.8	1.98	2.26	2.46	1.24	1.72
AE566PNB104MSZ	100±20%	216.8	240.9	5.6	8.0	1.84	2.08	2.24	1.19	1.65
AE566PNB124KSZ	120±10%	287.2	319.2	5.0	7.2	1.62	1.86	2.04	1.03	1.42
AE566PNB154KSZ	150±10%	326.7	363.0	4.6	6.6	1.48	1.70	1.82	0.95	1.30
AE566PNB184KSZ	180±10%	379.5	421.7	4.1	5.9	1.36	1.56	1.68	0.89	1.21
AE566PNB224KSZ	220±10%	488.2	542.5	3.7	5.3	1.22	1.38	1.50	0.76	1.00
AE566PNB274KSZ	270±10%	560.1	622.4	3.3	4.7	1.12	1.26	1.36	0.72	0.95
AE566PNB334KSZ	330±10%	731.4	812.7	2.9	4.1	1.00	1.10	1.20	0.65	0.87
AE566PNB394KSZ	390±10%	813.7	904.2	2.7	3.8	0.946	1.00	1.10	0.59	0.79
AE566PNB474KSZ	470±10%	935.1	1039	2.5	3.5	0.864	0.978	1.00	0.56	0.76
AE566PNB564KSZ	560±10%	1193	1326	2.1	3.0	0.776	0.884	0.956	0.50	0.67
AE566PNB684KSZ	680±10%	1370	1523	2.0	2.8	0.720	0.818	0.882	0.46	0.62
AE566PNB824KSZ	820±10%	1590	1767	1.8	2.6	0.634	0.728	0.792	0.43	0.58
AE566PNB105KSZ	1000±10%	2090	2323	1.7	2.4	0.594	0.676	0.728	0.36	0.50

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

AE566PNB105KSZ

Screening: Z = Unscreened

H = Coilcraft CP-SA-10001 Group A

1/2/3 = EEE-INST-002 (Family 1)
Level 1/2/3

4/5 = MIL-STD-981 (Family 04)
Class B=4, Class S=5

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 measured at 100 kHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-A fixture in an Agilent/HP 4263B LCR meter or equivalent.

3. DCR measured on a micro-ohmmeter and a Coilcraft CCF858 test fixture.

4. SRF measured using an Agilent/HP 8753D network analyzer.

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

© Coilcraft, Inc. 2020

1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

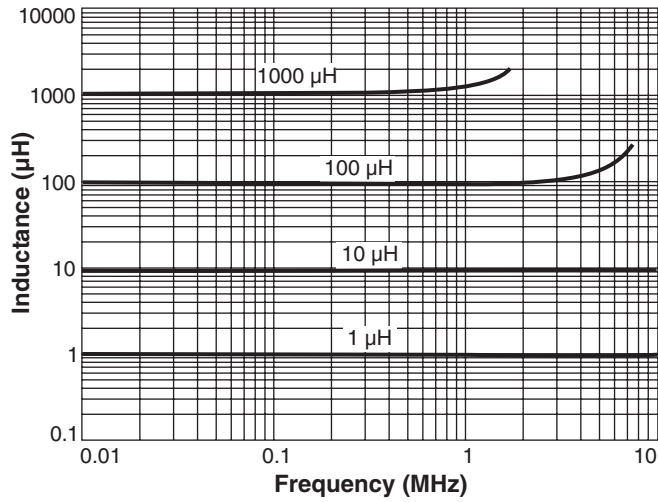
Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

Document AE540-1 Revised 11/12/20

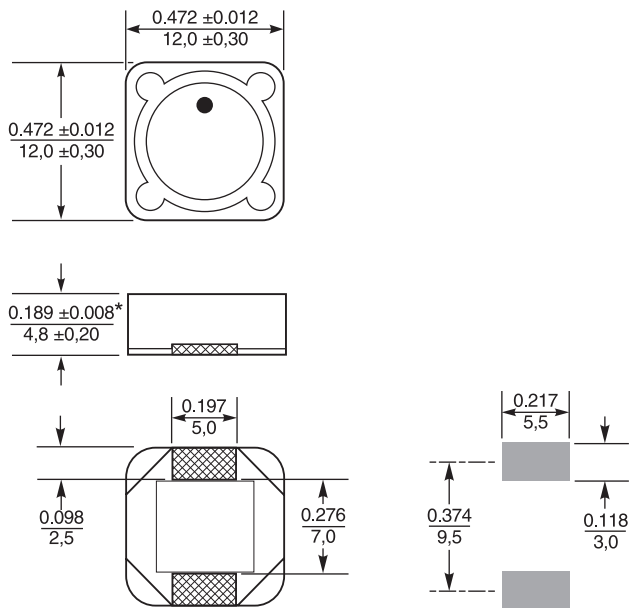
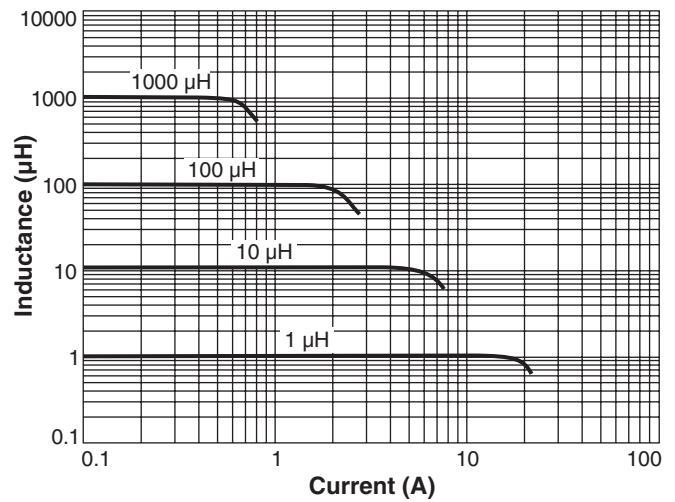
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

AE566PNB Series

Typical L vs Frequency



Typical L vs Current



*Dimensions are for the mounted part. Dimensions before mounting can be an additional 0.006 inch (0,152 mm).

Suggested Land Pattern

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

