

High-Reliability Power Inductors MS566PNB



- High current, low DCR shielded power inductors
- 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, +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 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 (MHz) ⁴		Isat (A) ⁵			Irms (A) ⁶	
		typ	max	min	typ	10% drop	20% drop	30% drop	20°C rise	40°C rise
MS566PNB102MSZ	1.0±20%	5.6	6.3	70.0	100	18.14	20.64	22.24	6.00	8.00
MS566PNB152MSZ	1.5±20%	8.7	9.7	60.0	85.0	14.06	15.90	17.08	5.80	7.80
MS566PNB272MSZ	2.7±20%	10.3	11.5	49.0	70.0	11.66	13.16	14.16	5.00	6.80
MS566PNB332MSZ	3.3±20%	15.1	16.8	46.0	65.0	9.74	11.08	11.98	4.50	6.30
MS566PNB472MSZ	4.7±20%	19.1	21.3	30.0	42.0	8.62	9.70	10.42	4.40	6.00
MS566PNB562MSZ	5.6±20%	22.1	24.6	26.0	37.0	7.62	8.74	9.44	3.95	5.75
MS566PNB682MSZ	6.8±20%	24.9	27.7	23.0	33.0	7.38	8.36	9.00	3.70	5.20
MS566PNB822MSZ	8.2±20%	27.4	30.5	22.0	31.0	6.84	7.70	8.32	3.35	4.67
MS566PNB103MSZ	10±20%	36.8	40.9	19.0	27.0	5.88	6.66	7.18	2.85	3.90
MS566PNB123MSZ	12±20%	38.9	43.3	17.0	24.0	5.34	6.04	6.52	2.69	3.65
MS566PNB153MSZ	15±20%	48.6	54.1	15.0	22.0	4.68	5.36	5.78	2.50	3.40
MS566PNB183MSZ	18±20%	51.0	56.7	13.0	19.0	4.32	4.92	5.32	2.41	3.19
MS566PNB223MSZ	22±20%	60.3	67.0	12.6	18.0	3.84	4.34	4.75	2.30	3.14
MS566PNB273MSZ	27±20%	67.5	75.0	11.2	16.0	3.54	4.02	4.32	2.06	2.86
MS566PNB333MSZ	33±20%	81.7	90.8	10.5	15.0	3.24	3.66	3.96	1.90	2.60
MS566PNB393MSZ	39±20%	95.2	105.8	9.3	13.3	3.04	3.46	3.72	1.73	2.39
MS566PNB473MSZ	47±20%	120.6	134.0	8.4	12.0	2.70	3.08	3.34	1.50	2.10
MS566PNB563MSZ	56±20%	133.8	148.7	7.4	10.6	2.46	2.80	3.02	1.44	2.01
MS566PNB683MSZ	68±20%	167.3	185.9	6.8	9.7	2.26	2.54	2.74	1.30	1.80
MS566PNB823MSZ	82±20%	188.5	209.5	6.2	8.8	1.98	2.26	2.46	1.24	1.72
MS566PNB104MSZ	100±20%	216.8	240.9	5.6	8.0	1.84	2.08	2.24	1.19	1.65
MS566PNB124KSZ	120±10%	287.2	319.2	5.0	7.2	1.62	1.86	2.04	1.03	1.42
MS566PNB154KSZ	150±10%	326.7	363.0	4.6	6.6	1.48	1.70	1.82	0.95	1.30
MS566PNB184KSZ	180±10%	379.5	421.7	4.1	5.9	1.36	1.56	1.68	0.89	1.21
MS566PNB224KSZ	220±10%	488.2	542.5	3.7	5.3	1.22	1.38	1.50	0.76	1.00
MS566PNB274KSZ	270±10%	560.1	622.4	3.3	4.7	1.12	1.26	1.36	0.72	0.95
MS566PNB334KSZ	330±10%	731.4	812.7	2.9	4.1	1.00	1.10	1.20	0.65	0.87
MS566PNB394KSZ	390±10%	813.7	904.2	2.7	3.8	0.946	1.00	1.10	0.59	0.79
MS566PNB474KSZ	470±10%	935.1	1039	2.5	3.5	0.864	0.978	1.00	0.56	0.76
MS566PNB564KSZ	560±10%	1193	1326	2.1	3.0	0.776	0.884	0.956	0.50	0.67
MS566PNB684KSZ	680±10%	1370	1523	2.0	2.8	0.720	0.818	0.882	0.46	0.62
MS566PNB824KSZ	820±10%	1590	1767	1.8	2.6	0.634	0.728	0.792	0.43	0.58
MS566PNB105KSZ	1000±10%	2090	2323	1.7	2.4	0.594	0.676	0.728	0.36	0.50

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

MS566PNB105KSZ

Testing: Z = COTS

H = Screening per Coilcraft
CP-SA-10001

N = Screening per Coilcraft
CP-SA-10004

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

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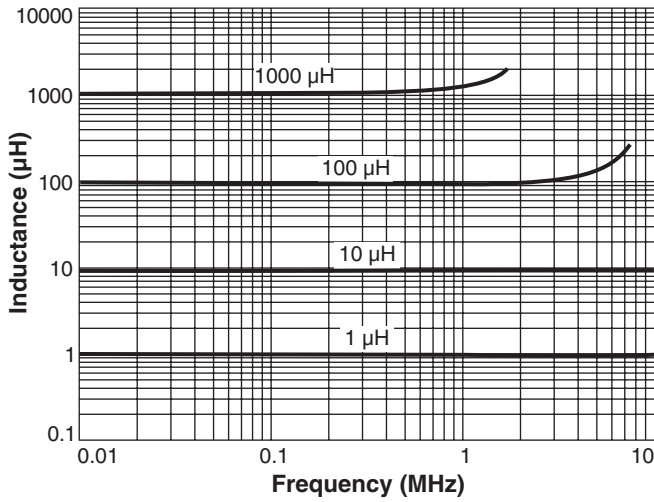
Fax 847-639-1508
Email cps@coilcraft.com
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Document MS540-1 Revised 12/05/12

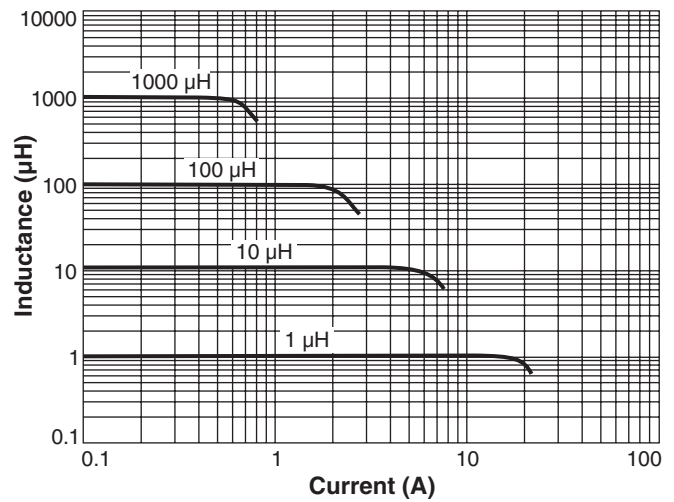
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

MS566PNB Series

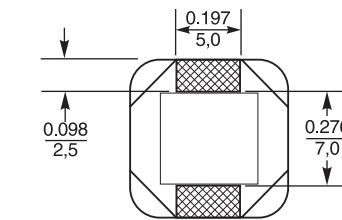
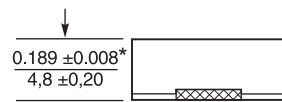
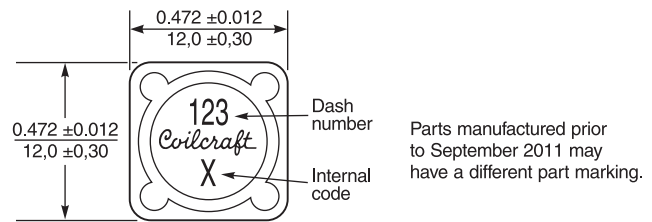
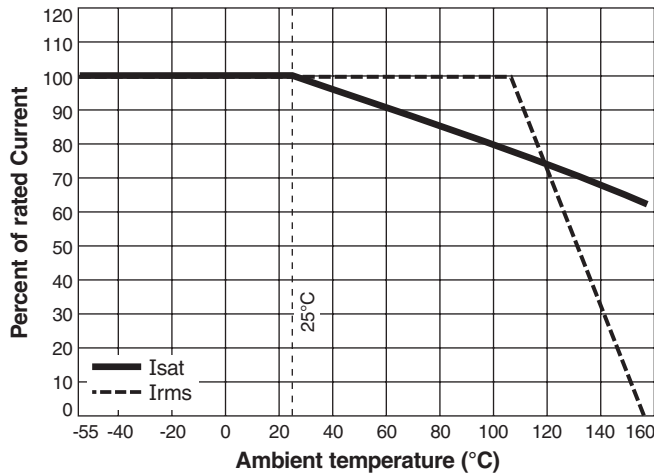
Typical L vs Frequency



Typical L vs Current

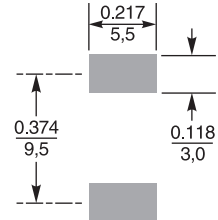


Current Derating



Parts manufactured prior to September 2011 may have a different part marking.

*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 $\frac{\text{inches}}{\text{mm}}$

