

Power Inductor for Critical Applications ST432PNA



- 4 × 4 mm footprint; 2 mm high shielded inductors
- Low DCR and excellent current handling

Core material Ferrite

Terminations Matte tin over nickel over phos bronze. Other terminations available at additional cost.

Weight: 81.0 – 87.8 mg

Ambient temperature –40°C to +85°C with Irms current

Maximum part temperature +125°C (ambient + temp rise)

Storage temperature Component: –55°C to +125°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)

Packaging 2000/13" reel; Plastic tape: 12 mm wide, 0.3 mm thick, 8 mm pocket spacing, 2.2 mm pocket depth

Part number ¹	Inductance ² ±20% (µH)	DCR max (Ohms)	SRF typ ³ (MHz)	Isat (A) ⁴			Irms (A) ⁵	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
ST432PNA332MLZ	3.3	0.085	109.0	0.94	1.10	1.20	1.25	1.60
ST432PNA472MLZ	4.7	0.115	93.0	0.73	0.87	0.95	1.10	1.50
ST432PNA562MLZ	5.6	0.130	85.0	0.70	0.82	0.89	1.05	1.40
ST432PNA682MLZ	6.8	0.175	75.0	0.65	0.76	0.83	0.96	1.30
ST432PNA822MLZ	8.2	0.190	70.0	0.61	0.71	0.77	0.89	1.20
ST432PNA103MLZ	10	0.210	63.0	0.50	0.60	0.67	0.86	1.15
ST432PNA123MLZ	12	0.280	55.0	0.47	0.55	0.60	0.75	1.00
ST432PNA153MLZ	15	0.330	50.0	0.45	0.53	0.58	0.71	0.95
ST432PNA183MLZ	18	0.360	42.0	0.40	0.47	0.52	0.67	0.85
ST432PNA223MLZ	22	0.480	38.0	0.39	0.45	0.49	0.60	0.80
ST432PNA273MLZ	27	0.560	35.0	0.30	0.36	0.39	0.54	0.71
ST432PNA333MLZ	33	0.620	31.0	0.29	0.34	0.38	0.50	0.67
ST432PNA393MLZ	39	0.820	28.5	0.28	0.32	0.36	0.44	0.58
ST432PNA473MLZ	47	0.930	28.0	0.25	0.28	0.31	0.42	0.56
ST432PNA563MLZ	56	1.200	22.0	0.23	0.27	0.29	0.35	0.47
ST432PNA683MLZ	68	1.330	18.0	0.20	0.24	0.26	0.32	0.43
ST432PNA823MLZ	82	1.500	17.0	0.18	0.21	0.23	0.30	0.40
ST432PNA104MLZ	100	2.100	15.0	0.15	0.18	0.20	0.27	0.36

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

ST432PNA104MLZ

Termination: L = Matte tin over nickel over phos bronze.

Special order: T = Tin-silver-copper (95.5/4/0.5) or
S = Tin-lead (63/37).

Note: These inductors have internal parts that contain 100% tin.

Testing: Z = Unscreened

H = Group A screening per Coilcraft CP-SA-10001

T = Screening per MIL-STD-981

U = Screening per EEE-INST-002

F = Screening per ESCC 3201

All screening performed to the document's latest revision

Custom screening also available

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. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD -D test fixture.

4. DC current at which the inductance drops the specified amount from its value without current.

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

6. Electrical specifications at 25°C.

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

Coilcraft CPS
CRITICAL PRODUCTS & SERVICES

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

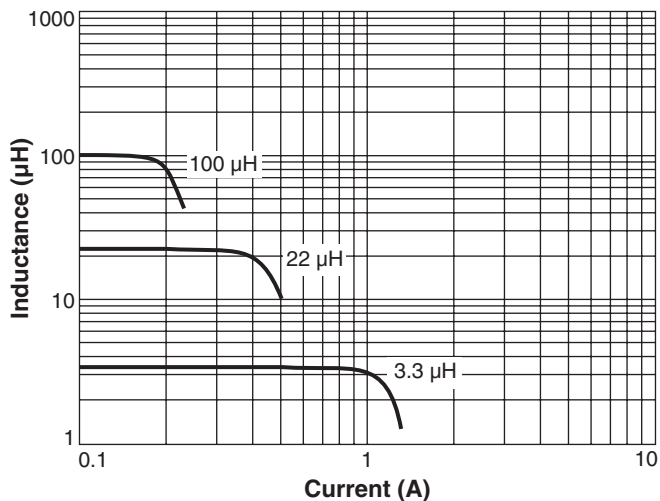
Fax 847-639-1508
Email cps@coilcraft.com
www.coilcraft-cps.com

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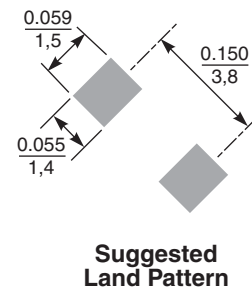
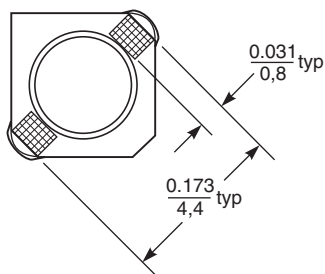
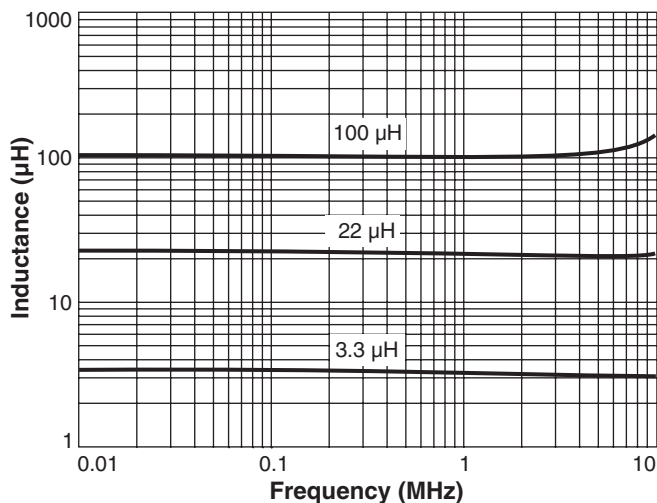
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Typical L vs Current



Typical L vs Frequency



Note: Dimensions are before optional solder application. For maximum overall dimensions including solder, add 0.0025 in / 0,064 mm to the length and width, and 0.006 in / 0,15 mm to the height.

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