

Power Inductors for Critical Applications ST615PTA



- Exceptionally high current carrying capability
- Low DC resistance

Core material Ferrite

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

Weight 4.0 – 4.8 g

Ambient temperature –55°C to +85°C with Irms current

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

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

Tape and reel packaging: –40°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)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

Packaging 300 per 13" reel; Plastic tape: 24 mm wide, 0.5 mm thick, 20 mm pocket spacing, 9.6 mm pocket depth

Part number ¹	Inductance ² ±20% (µH)	DCR (mOhm) 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
ST615PTA103M_Z	10	13.7	15.0	26.9	11.32	12.56	13.16	6.4	9.2
ST615PTA153M_Z	15	13.7	15.0	24.3	7.20	8.04	8.60	6.4	9.2
ST615PTA223M_Z	22	21.0	23.1	20.3	6.08	6.80	7.36	5.7	7.7
ST615PTA333M_Z	33	21.0	23.1	15.7	3.80	4.40	4.76	5.7	7.7
ST615PTA473M_Z	47	21.0	23.1	13.2	2.60	3.00	3.20	5.7	7.7

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

ST615PTA473MLZ

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

Special order:

S = Non-RoHS tin-lead (63/37).

Testing: Z = Unscreened

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

All screening performed to the document's latest revision

Custom screening also available

2. Inductance measured at 100 kHz, 0.1 Vrms, 0.1 Adc on an Agilent/HP 4284A or equivalent.

3. DCR measured on a micro-ohmmeter.

4. SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16193A test fixture.

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

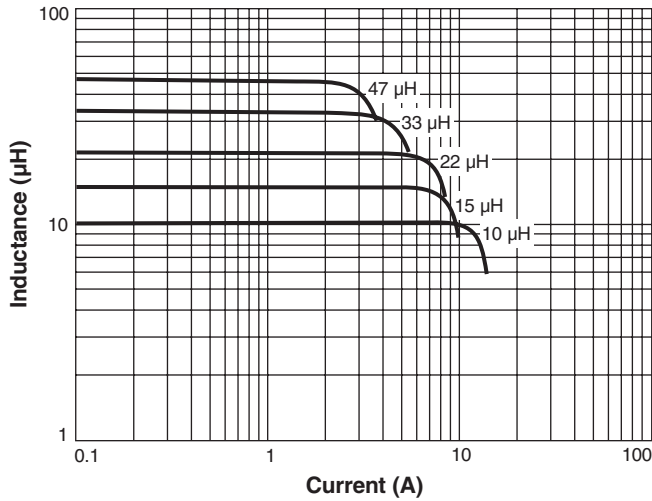
6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

7. Electrical specifications at 25°C.

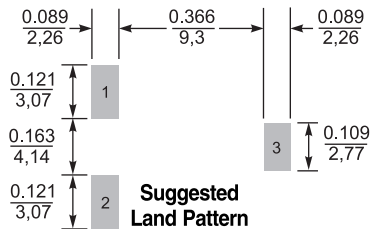
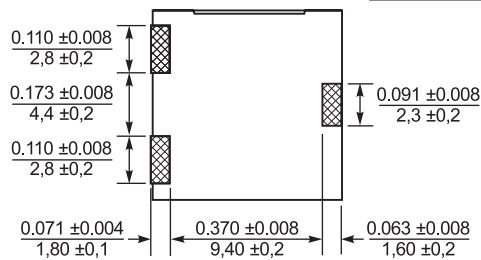
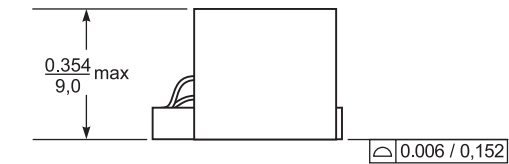
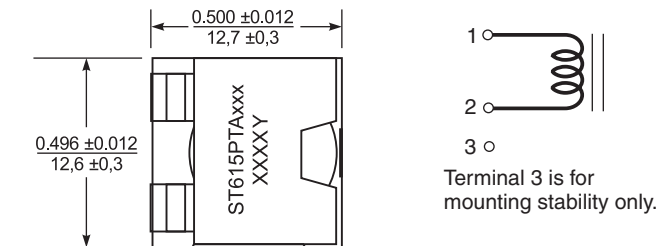
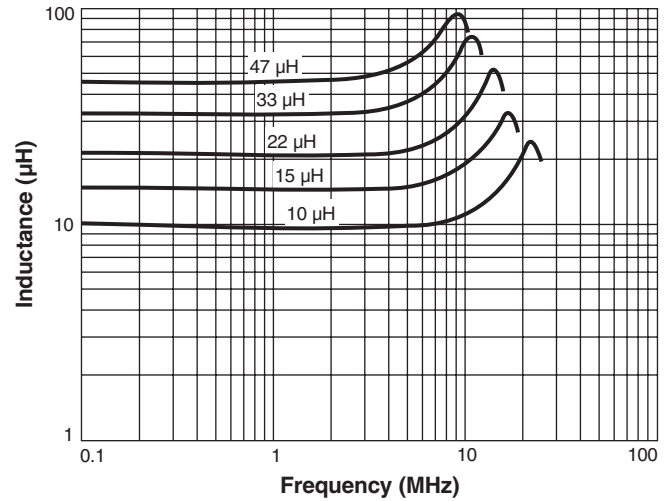
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

ST615PTA Series

L vs Current



L vs Frequency



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



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