

Power Inductor for Critical Applications ST485PKA



- High energy storage and very low resistance
- High inductance with tight tolerance
- Excellent current handling for a part this size; low DCR

Core material Ferrite

Terminations Gold over nickel over moly-manganese. Other terminations available at additional cost.

Weight 128–164 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.

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)

Packaging 750/7" reel Plastic tape: 12 mm wide, 0.28 mm thick, 4 mm pocket spacing, 3 mm pocket depth

Part number ¹	L ² (µH)	% tol	DCR max (Ohms)	SRF typ (MHz)	Isat ³ (A)	Irms (A) ⁴	
						20°C rise	40°C rise
ST485PKA102MLZ	1.0	20	0.05	130	2.9	1.90	2.70
ST485PKA152MLZ	1.5	20	0.06	115	2.6	1.90	2.65
ST485PKA222MLZ	2.2	20	0.07	100	2.3	1.85	2.55
ST485PKA272MLZ	2.7	20	0.08	75	2.1	1.80	2.45
ST485PKA332MLZ	3.3	20	0.08	70	2.0	1.60	2.20
ST485PKA472MLZ	4.7	20	0.09	50	1.5	1.40	1.90
ST485PKA682MLZ	6.8	20	0.13	45	1.2	1.20	1.60
ST485PKA822MLZ	8.2	20	0.16	40	1.15	1.10	1.55
ST485PKA103MLZ	10	20	0.16	35	1.10	1.10	1.50
ST485PKA153MLZ	15	20	0.23	30	0.90	0.90	1.25
ST485PKA223_LZ	22	20,10	0.37	20	0.70	0.75	0.95
ST485PKA333_LZ	33	20,10	0.51	15	0.58	0.60	0.80
ST485PKA473_LZ	47	20,10	0.64	14	0.50	0.52	0.70
ST485PKA683_LZ	68	20,10	0.86	11	0.40	0.44	0.60
ST485PKA104_LZ	100	20,10	1.27	9.0	0.31	0.37	0.50
ST485PKA154_LZ	150	20,10	2.00	6.0	0.27	0.28	0.39
ST485PKA224_LZ	220	20,10	3.11	5.5	0.22	0.23	0.31
ST485PKA334_LZ	330	20,10	3.80	5.0	0.18	0.22	0.30
ST485PKA474_LZ	470	20,10	5.06	4.0	0.16	0.20	0.26
ST485PKA684_LZ	680	20,10	9.20	3.0	0.14	0.14	0.19
ST485PKA105_LZ	1000	20,10	13.8	2.0	0.10	0.11	0.15

1. Please specify **tolerance, termination** and **testing** codes:

$$\begin{array}{c} \text{ST485PKA105MLZ} \\ \text{K} \quad \text{M} \quad \text{Z} \end{array}$$

Tolerance: K = 10%, M = 20%

Termination: L = Gold over nickel over moly-manganese.
Special order:
T = Tin-silver-copper (95.5/4/0.5) or
S = 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

2. Tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.

3. DC current at 25°C that causes a 10% (typ) inductance drop from its value without current.

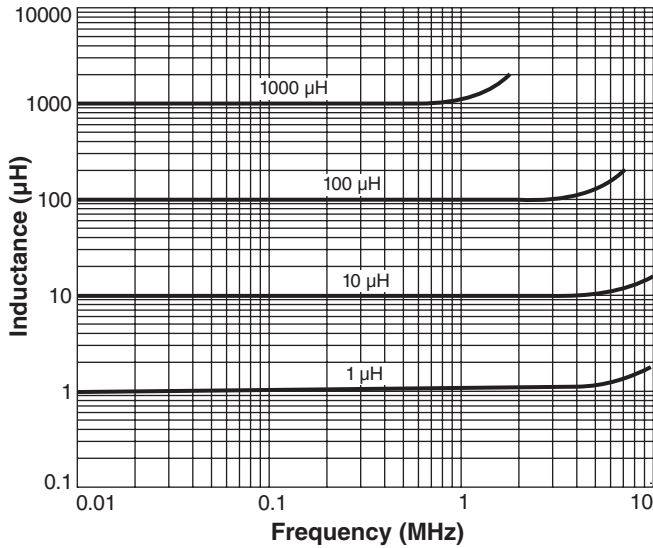
4. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

5. Electrical specifications at 25°C.

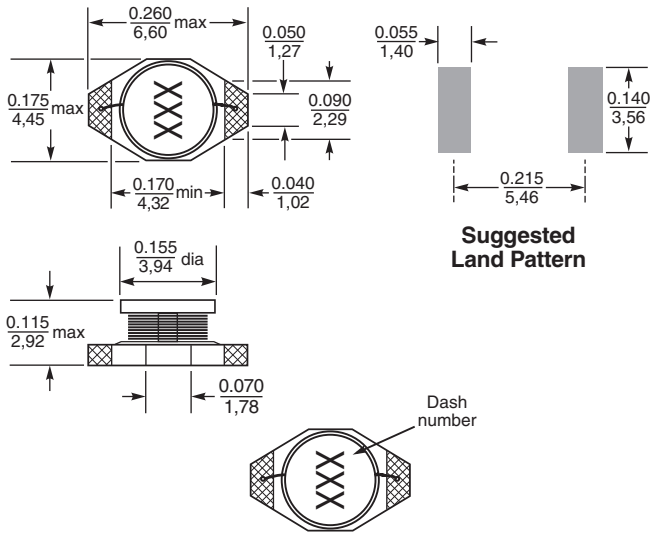
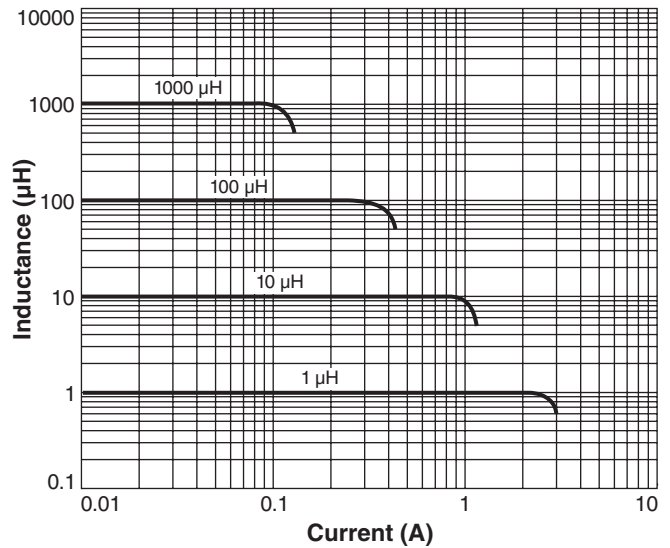
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

ST485PKA Series

Typical L vs Frequency



Typical L vs Current



Dimensions are in inches/mm



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