

High-Reliability Power Inductors ML598PTA



- High temperature materials allow operation in ambient temperatures up to 155°C.
- Excellent current handling; very low DCR

Core material Ferrite

Terminations Pins 1 and 2: Tin-silver over tin over nickel over phos bronze; Pin 3: Matte tin over nickel over phos bronze

Weight 2.3 – 3.2 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.
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)

Enhanced crush-resistant packaging 500 per 13" reel;
Plastic tape: 24 mm wide, 0.4 mm thick, 16 mm pocket spacing, 6.6 mm pocket depth

Part number ¹	Inductance ² ±10% (µH)	DCR (mOhm) ³		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
ML598PTA331KLZ	0.33	0.77	0.85	140	200	36	41	43	13.0	16.9
ML598PTA651KLZ	0.65	0.77	0.85	112	160	23	27	28	13.0	16.9
ML598PTA102KLZ	1.0	2.36	2.60	52.5	75.0	32	33	33.5	9.5	13.0
ML598PTA182KLZ	1.8	2.36	2.60	35.0	50.0	17	19	20	9.5	13.0
ML598PTA272KLZ	2.7	2.36	2.60	29.4	42.0	12	13	14	9.5	13.0
ML598PTA402KLZ	4.0	5.50	6.05	23.8	34.0	11	12	13	7.1	9.4
ML598PTA472KLZ	4.7	5.50	6.05	22.4	32.0	9.5	11	12	7.1	9.4
ML598PTA602KLZ	6.0	5.50	6.05	19.6	28.0	8.0	9.0	9.5	7.1	9.4
ML598PTA802KLZ	8.0	9.83	10.81	18.2	26.0	7.5	8.5	9.0	5.5	7.6
ML598PTA103KLZ	10	9.83	10.81	16.8	24.0	6.2	7.0	7.5	4.4	7.2
ML598PTA223KLZ	22	9.83	10.81	9.10	13.0	2.4	3.0	3.3	4.4	7.2

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

ML598PTA223KLZ

Screening: Z = Unscreened

H = Coilcraft CP-SA-10001 Group A

G = Coilcraft CP-SA-10001 Group A (SLDC Option A)

D = Coilcraft CP-SA-10001 Group A (SLDC Option B)

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 on an Agilent/HP 4284A or equivalent.

3. DCR measured on a micro-ohmmeter.

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

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

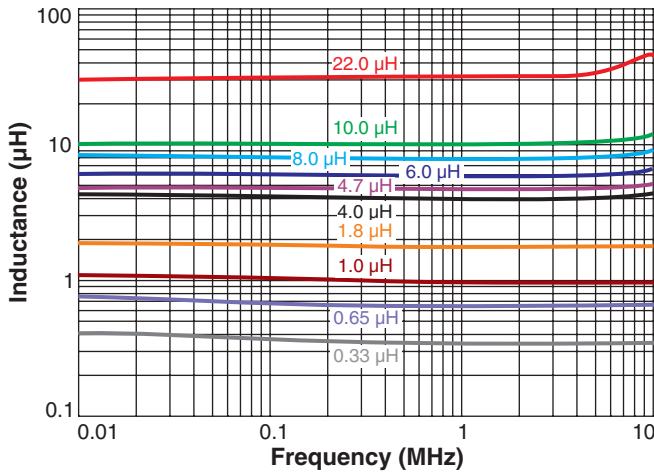
6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.

7. Electrical specifications at 25°C.

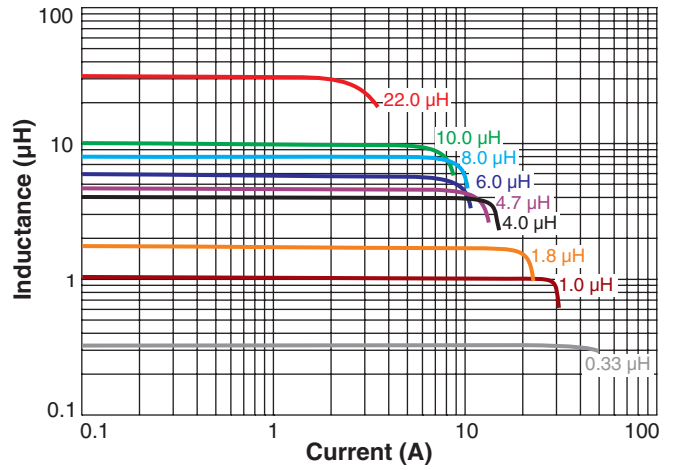
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

ML598PTA Series

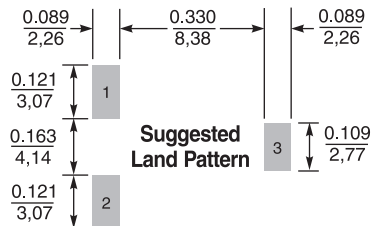
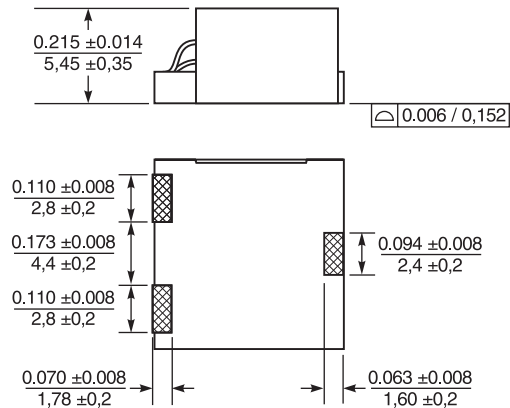
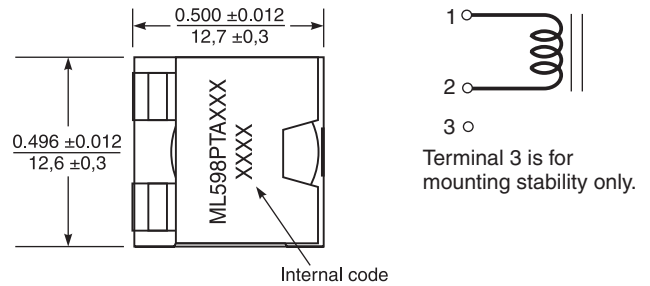
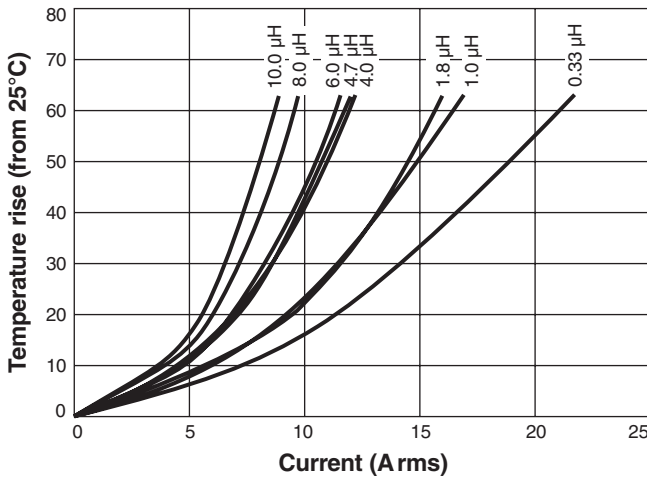
Typical L vs Frequency



Typical L vs Current



Temperature Rise vs Current



Dimensions are in inches / mm



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