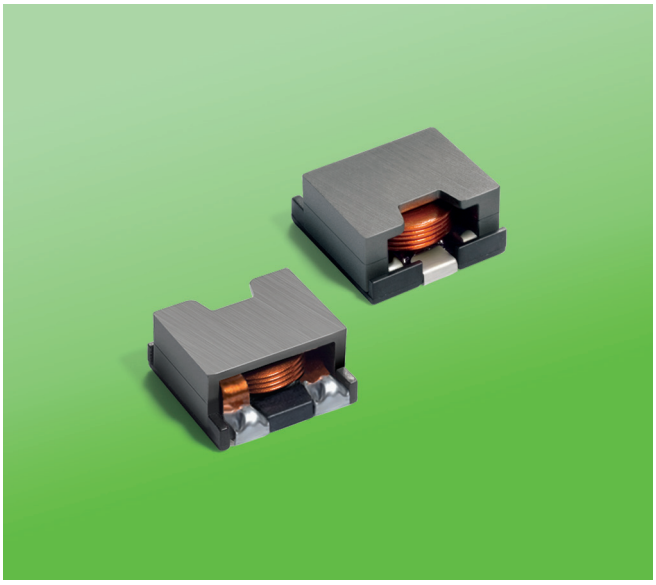
High-Reliability Power Inductors ML558PTA



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

Core material Ferrite

Terminations Tin-silver over tin over nickel over phos bronze (pins 1 and 2); Matte tin over nickel over phos bronze (pin 3).

Weight 1.6 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.
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 200/7″ reel
Plastic tape: 24 mm wide,0.4 mm thick, 16 mm pocket spacing, 5.45 mm pocket depth

Part number[1]	Inductance[2] ±20% (µH)	DCR max[3] (mOhm)	SRF (MHz)[4] min	SRF (MHz)[4] typ	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms (A)[6] 20°C rise	Irms (A)[6] 40°C rise
ML558PTA331MLZ	0.33	4.0	119	170	29.5	30.0	30.5	12.5	16.3
ML558PTA801MLZ	0.80	4.0	70.0	100	24.9	25.2	25.6	12.5	16.3
ML558PTA102MLZ	1.0	4.0	66.5	95.0	16.5	17.0	17.5	12.5	16.3
ML558PTA122MLZ	1.2	6.0	63.7	91.0	20.5	21.0	21.3	11.0	15.0
ML558PTA132MLZ	1.3	4.0	56.7	81.0	12.9	16.8	17.2	12.5	16.3
ML558PTA152MLZ	1.5	6.0	52.5	75.0	13.5	14.0	14.5	11.0	15.0
ML558PTA182MLZ	1.8	6.0	49.0	70.0	13.3	13.8	14.3	11.0	15.0
ML558PTA202MLZ	2.0	9.0	45.5	65.0	15.3	15.8	16.2	8.5	11.5
ML558PTA222MLZ	2.2	4.0	40.6	58.0	8.9	9.6	10.0	12.5	16.3
ML558PTA252MLZ	2.5	7.5	38.5	55.0	11.4	11.8	12.1	9.0	12.0
ML558PTA322MLZ	3.2	6.0	37.1	53.0	7.3	7.8	8.5	11.0	15.0
ML558PTA402MLZ	4.0	9.0	32.9	47.0	8.3	8.5	8.8	8.5	11.5
ML558PTA432MLZ	4.3	7.5	30.8	44.0	6.4	6.8	7.0	9.0	12.0
ML558PTA572MLZ	5.7	9.0	24.5	35.0	5.4	5.8	6.0	8.5	11.5

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

ML558PTA572MLZ

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

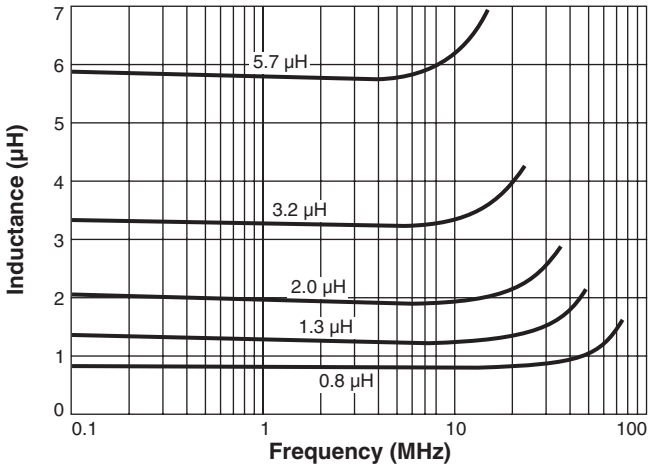
1102 Silver Lake Road
Cary, IL 60013
Phone 800-981-0363

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

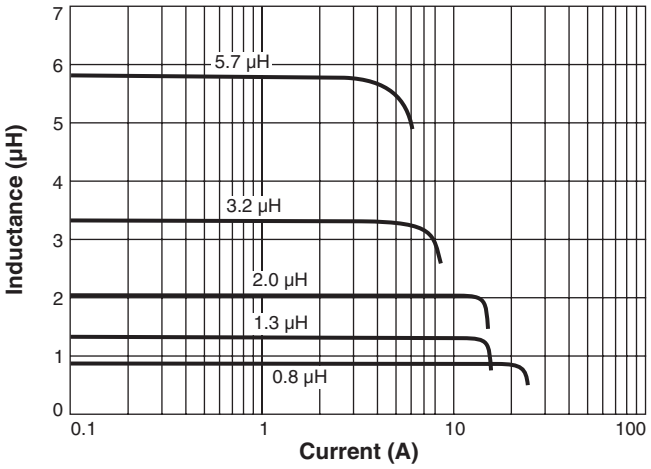
Document ML535-1 Revised12/05/12

ML558PTA Series

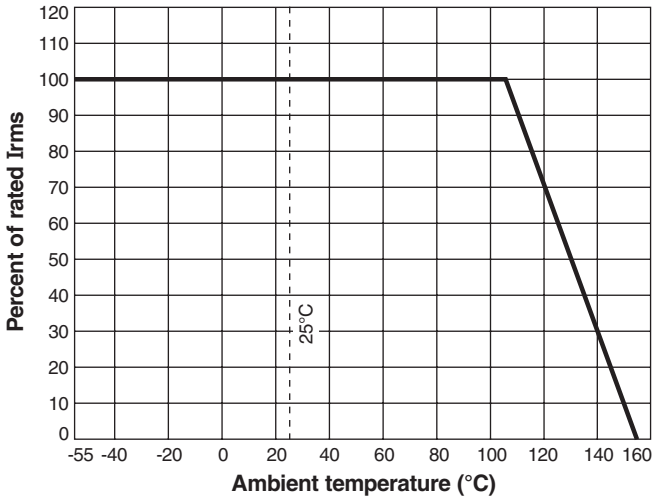
Typical L vs Frequency

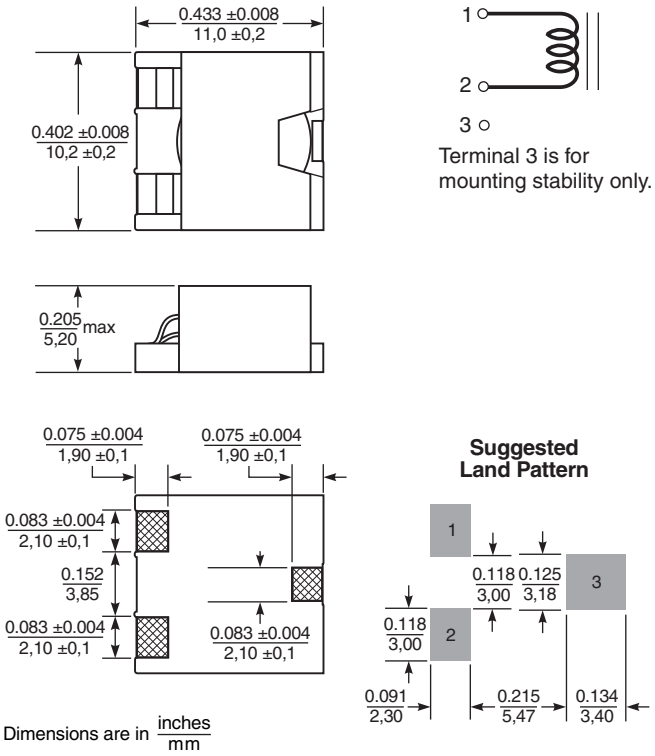


Typical L vs Current



Irms Derating





Terminal 3 is for mounting stability only.

Dimensions are in inches / mm

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