

# High-Reliability Power Inductors MS534PMM



- Designed for use in multi-phase VRM/VRD regulators and high current/high frequency DC/DC converters.
- Requires only 70 mm<sup>2</sup> of board space; can handle current up to 61 A.
- Tin-lead (Sn-Pb) terminations for the best possible board adhesion

**Core material** Ferrite

**Terminations** Tin-lead (63/37) over tin over nickel over copper.

**Weight** 1.1 – 1.5 g

**Ambient temperature** -55°C to +125°C with Irms current

**Maximum part temperature** +155°C (ambient + temp rise)

**Storage temperature** Component: -55°C to +155°C.

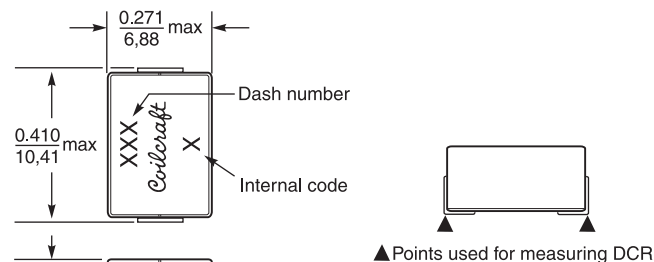
Tape and reel packaging: -40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

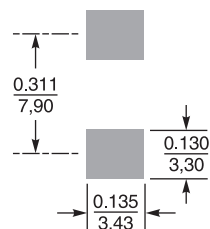
**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Packaging** 250/7" reel; 1000/13" reel Plastic tape: 24 mm wide, 0.35 mm thick, 12 mm pocket spacing, 5.08 mm pocket depth

Part number <sup>1,7</sup>	L ±20% <sup>2</sup> (μH)	DCR (mOhms) <sup>3</sup>		SRF typ <sup>4</sup> (MHz)	Isat <sup>5</sup> (A)	Irms <sup>6</sup> (A)
		typ	max			
MS534PMM750MSZ	0.075	0.230	0.246	200	61.0	43.0
MS534PMM101MSZ	0.100	0.230	0.246	145	50.0	43.0
MS534PMM121MSZ	0.125	0.230	0.246	140	37.0	43.0
MS534PMM151MSZ	0.150	0.230	0.246	133	30.0	43.0
MS534PMM231MSZ	0.230	0.230	0.246	70	25.5	43.0



### Suggested Land Pattern



Dimensions are in inches  
mm

- When ordering, please specify **screening** code:

**MS534PMM231MSZ**

**Screening:** Z = Unscreened

Y = Unscreened (SLDC Option A)

W = Unscreened (SLDC Option B)

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

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

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

1 = EEE-INST-002 (Family 1) Level 1

2 = EEE-INST-002 (Family 1) Level 2

3 = EEE-INST-002 (Family 1) Level 3

4 = MIL-STD-981 (Family 04) Class B

5 = MIL-STD-981 (Family 04) Class S

F = ESCC3201 (F4 operational life performed at 105°C)

• Screening performed to the document's latest revision.

• Lot qualification (Group B) available.

• Testing T and U have been replaced with more detailed codes 4, 5, and 1, 2, 3, respectively. Codes T and U can still be used, if necessary. Custom testing also available.

- Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4263B LCR meter or equivalent.
- DCR is measured on a micro-ohmmeter at points indicated in the dimensional diagram.
- SRF measured with coils connected in series using an Agilent/HP 8753ES network analyzer or equivalent.
- DC current at 25°C that causes an inductance drop of 20% (typ) from its value without current.
- Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
- Due to the design of this component, DWV and IR shall not be specified or tested.
- 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

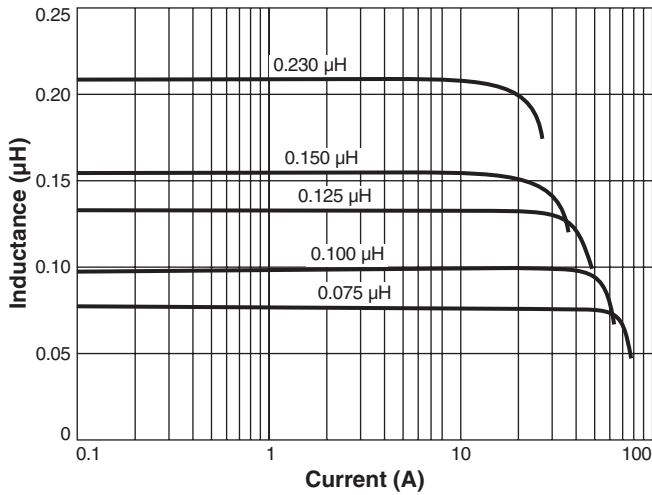
Fax 847-639-1508  
Email cps@coilcraft.com  
www.coilcraft-cps.com

Document MS498-1 Revised 04/24/23

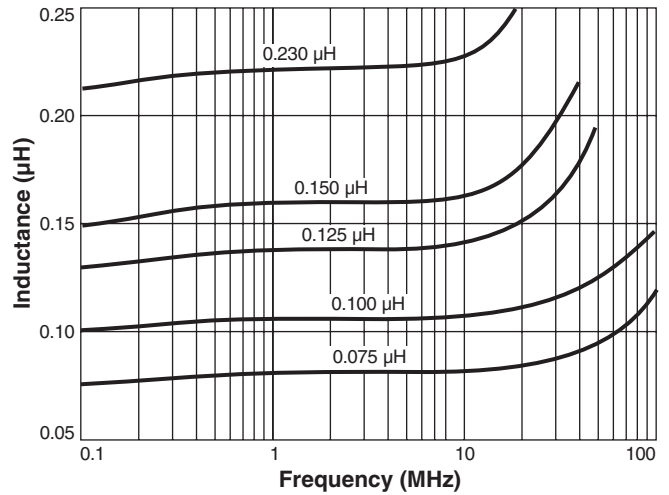
This product may not be used in medical or high risk applications without prior Coilcraft approval. Specifications subject to change without notice. Please check our web site for latest information.

# Shielded Power Inductors – MS534PMM Series

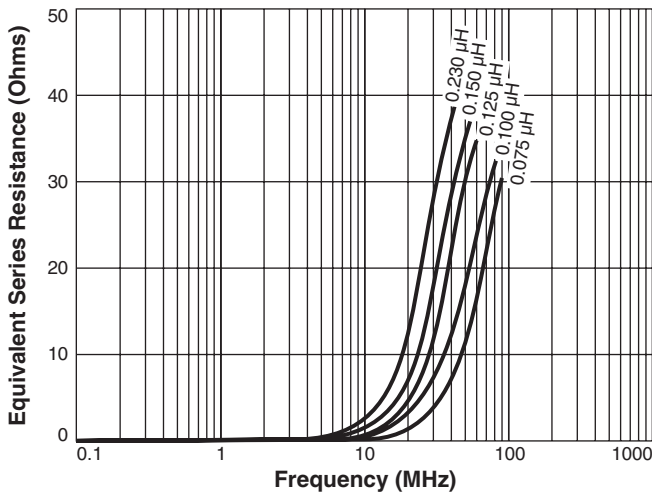
## L vs Current



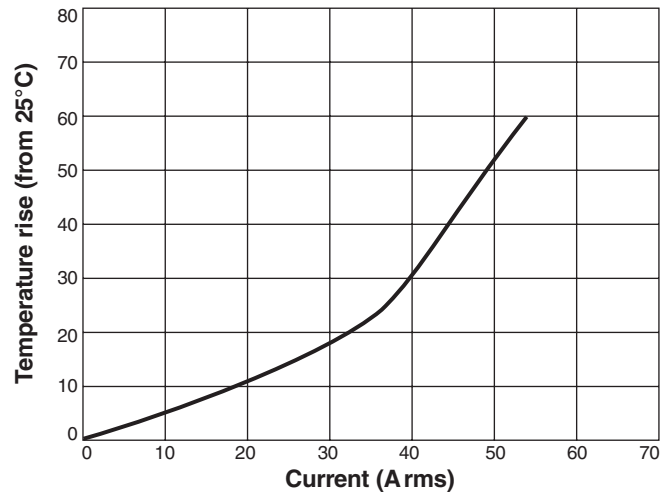
## L vs Frequency



## ESR vs Frequency



## Typical Temperature Rise vs Current



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

Fax 847-639-1508  
Email [cps@coilcraft.com](mailto:cps@coilcraft.com)  
[www.coilcraft-cps.com](http://www.coilcraft-cps.com)

Document MS498-2 Revised 04/24/23

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