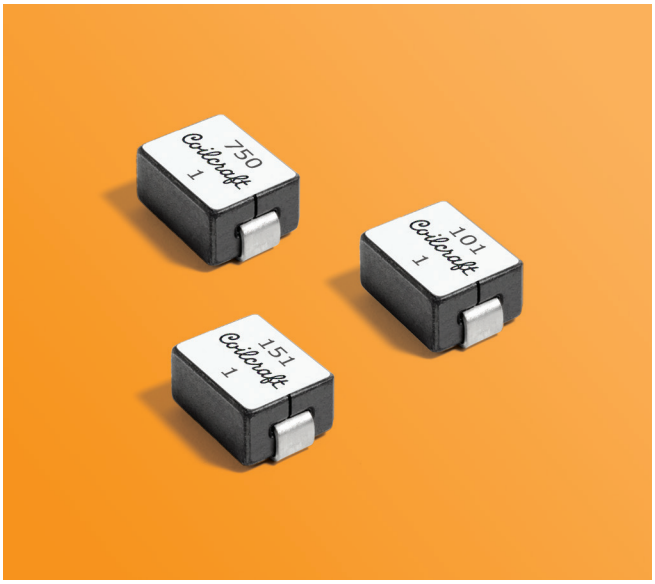
Shielded Power Inductors ST534PMM



- Designed for use in multi-phase VRM/VRD regulators and high current/high frequency DC/DC converters.
- Requires only 70 mm² of board space; can handle up to 61 A.

Core material Ferrite

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

Weight 1.1 – 1.5 g

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: –40°C to +80°C

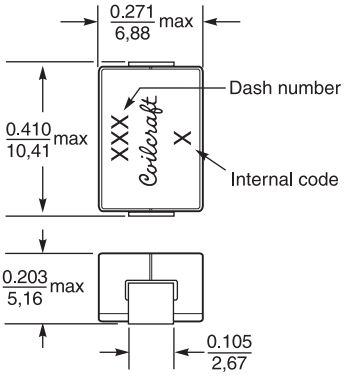
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

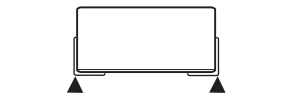
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Packaging 250/7″ reel Plastic tape: 24 mm wide, 0.35 mm thick, 12 mm pocket spacing, 5.08 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

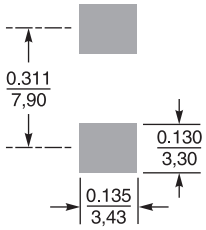
Part number[1,7]	L ±20%[2] (µH)	DCR (mOhms)[3] typ	DCR (mOhms)[3] max	SRF ref[4] (MHz)	Isat[5] (A)	Irms[6] (A)
ST534PMM750MLZ	0.075	0.230	0.246	200	61.0	43.0
ST534PMM101MLZ	0.100	0.230	0.246	145	50.0	43.0
ST534PMM121MLZ	0.125	0.230	0.246	140	37.0	43.0
ST534PMM151MLZ	0.150	0.230	0.246	133	30.0	43.0
ST534PMM231MLZ	0.230	0.230	0.246	70	25.5	43.0





▲Points used for measuring DCR

Suggested Land Pattern



Dimensions are in inches / mm

1. When ordering, please specify **termination** and **screening** codes:

ST534PMM231MLZ

Termination: **L** = Matte tin over nickel over copper
Special order:
T = Tin-silver-copper (95.5/4/0.5) or
S = Tin-lead (63/37).

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)
• Screening performed to the document's latest revision.

2. Inductance tested at 100 kHz, 0.1 Vrms using an Agilent/HP 4263B LCR meter or equivalent.
3. DCR is measured on a micro-ohmmeter at points indicated in the dimensional diagram.
4. This information is for design purposes only and shall not be tested during screening.
5. DC current at 25°C that causes a 20% (typ) 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. Due to the design of this component, DWV and IR shall not be specified or tested.
8. Electrical specifications at 25°C.

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

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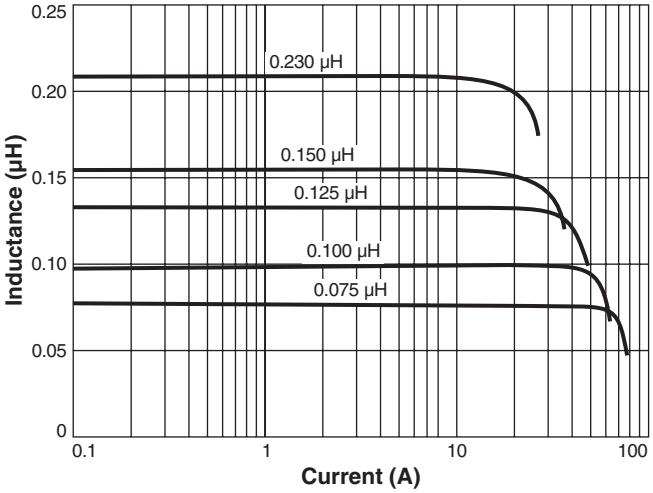
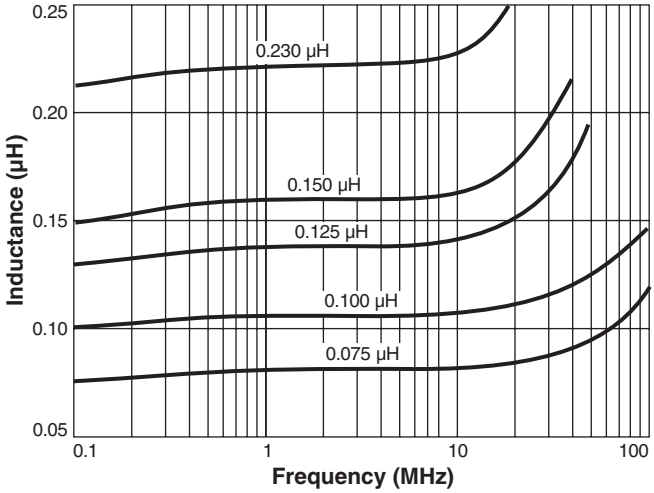
Shielded Power Inductors - ST534PMM Series

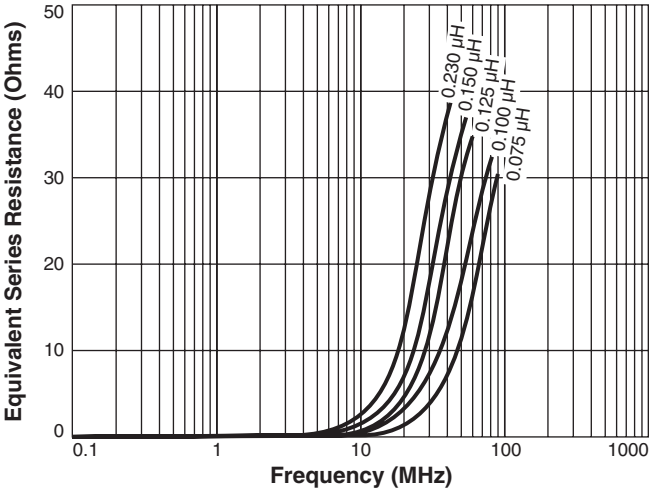
L vs Current



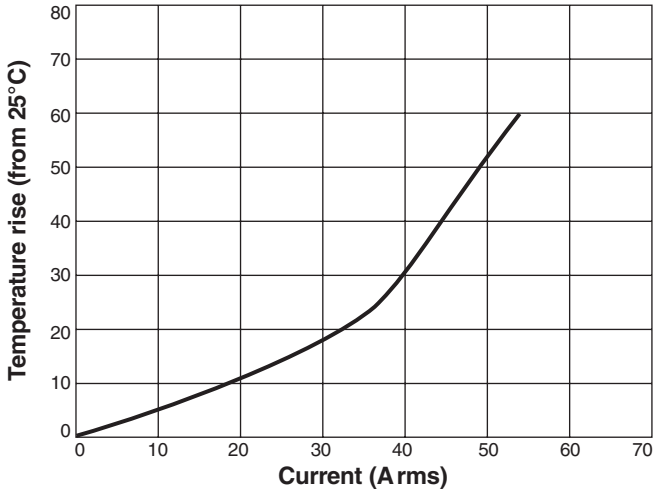
L vs Frequency



ESR vs Frequency



Typical Temperature Rise vs Current



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