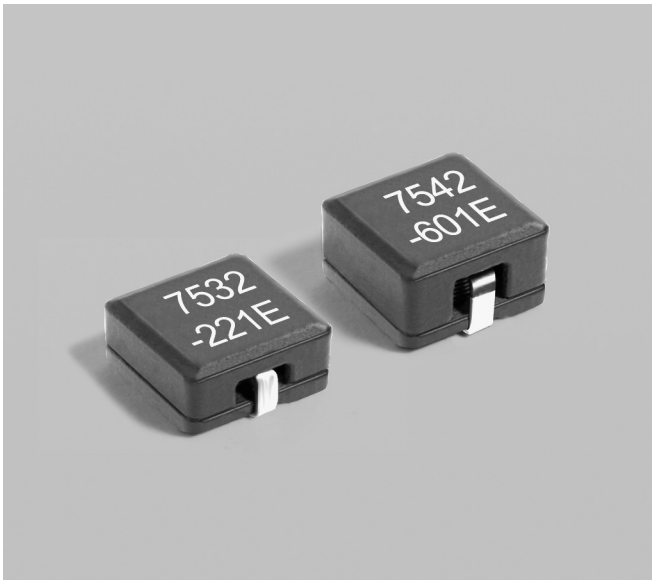
RoHS/ REACH COMPLIANT

Halogen Free

AEC Q200 +85°C

Shielded Power Inductors–MLC75xx



- Soft saturation makes them ideal for VRD/VRM applications
- Special materials eliminate all thermal aging issues.
- AEC-Q200 Grade 3 (–40°C to +85°C)
- Saturation current up to 59 Amps

Core material Iron
Core and winding loss See www.coilcraft.com/coreloss
Weight 0.60 – 0.80 g
Environmental RoHS compliant, halogen free
Terminations RoHS tin-silver over copper. Other terminations available at additional cost.
Ambient temperature –40°C to +85°C with Irms current
Maximum part temperature +125°C (ambient + temperature rise)
Storage temperature Component: –40°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)
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Part number[1]	Inductance[2] (µH)	DCR (mOhm) typ	DCR (mOhm) max	SRF typ[3] (MHz)	Isat (A)[4] 10% drop	Isat (A)[4] 20% drop	Isat (A)[4] 30% drop	Irms (A)[5] 20°C rise	Irms (A)[5] 40°C rise
MLC7532-101NE_	0.10±30%	1.20	1.40	140	21.0	38.0	56.2	24.9	32.5
MLC7532-221ME_	0.22±20%	2.50	2.80	128	22.9	41.0	59.2	20.2	26.5
MLC7542-311ME_	0.31±20%	2.30	2.70	114	12.2	21.9	29.8	20.0	23.8
MLC7542-601ME_	0.60±20%	2.95	3.80	96	9.9	15.7	20.2	16.7	21.9
MLC7540-102ME_	1.00±20%	4.42	5.00	81	7.4	11.3	15.7	13.8	18.2
MLC7540-142ME_	1.40±20%	7.10	8.00	76	6.3	11.0	14.3	10.6	14.1
MLC7540-222ME_	2.17±20%	11.7	13.0	65	5.3	8.3	11.4	8.5	11.3

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

MLC7540-222MEC

Termination: E = RoHS tin-silver over copper
Special order:
T = RoHS tin-silver-copper (95.5/4/0.5) or
S = non-RoHS tin-lead (63/37).

Packaging: C = 7″ machine-ready reel. EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked.
B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-A fixture in an Agilent/HP 4284A LCR meter.
3. SRF measured using an Agilent/HP4291A impedance analyzer and a Coilcraft 16193 fixture.
4. DC current at 25°C that causes the specified inductance drop from its value without current. Click for temperature derating information.
5. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. Click for temperature derating information.
6. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Coilcraft®
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 920-1 Revised 04/11/23

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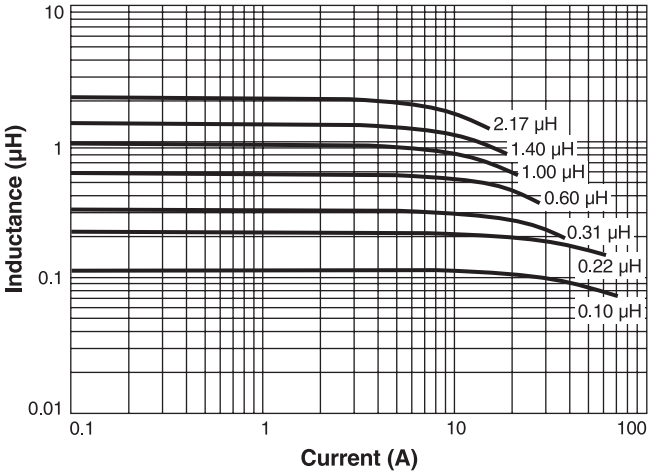
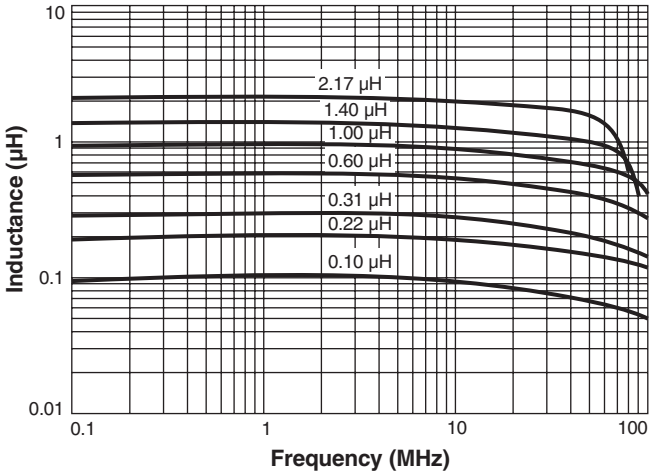
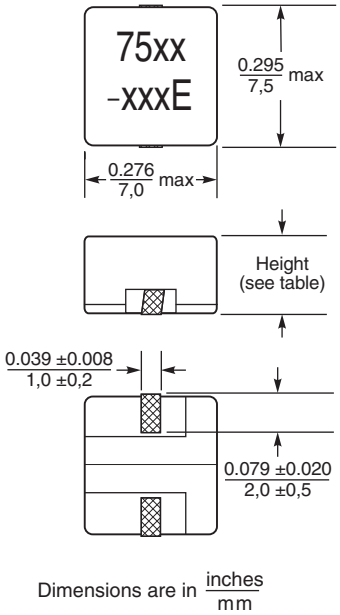
L vs Current

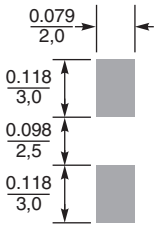


L vs Frequency





Body size	Height max inches	mm
MLC7532	0.126	3,2
MLC7540	0.157	4,0
MLC7542	0.165	4,2



Recommended Land Pattern

Dimensions are in inches / mm

Packaging

MLC7532 350/7″reel; 1500/13″ reel Plastic tape: 16 mm wide, 0.35 mm thick, 12 mm pocket spacing, 3.3 mm pocket depth

MLC7540 250/7″reel; 1200/13″ reel Plastic tape: 16 mm wide, 0.35 mm thick, 12 mm pocket spacing, 4.2 mm pocket depth

MLC7542 250/7″reel; 1200/13″ reel Plastic tape: 16 mm wide, 0.35 mm thick, 12 mm pocket spacing, 4.2 mm pocket depth

Coilcraft
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

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