



# Shielded Power Inductors – MSS7348



- Very low DCR – as low as 0.015 Ohms
- Current handling as high as 5.7 A
- AEC-Q200 Grade 3 (–40°C to +85°C)
- Wide range of inductance values available

**Core material** Ferrite

**Terminations** RoHS compliant matte tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 0.58 – 0.72 g

**Operating voltage** 400 V max

**Ambient temperature** –40°C to +85°C with (40°C rise) Irms current.

**Maximum part temperature** +125°C (ambient + temp 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)

**Packaging** 250/7" reel; 1000/13" reel; Plastic tape: 16 mm wide, 0.4 mm thick, 12 mm pocket spacing, 4.9 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	Inductance <sup>2</sup> ±20% (µH)	DCR (Ohms)		SRF typ <sup>3</sup> (MHz)	Isat (A) <sup>4</sup>			Irms (A) <sup>5</sup>	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS7348-332ME_	3.3	0.015	0.018	131	4.3	5.2	5.7	3.2	4.4
MSS7348-472ME_	4.7	0.024	0.029	87	3.2	3.8	4.2	2.5	3.4
MSS7348-682ME_	6.8	0.029	0.035	43	2.8	3.3	3.6	2.3	3.1
MSS7348-103ME_	10	0.038	0.045	27	2.2	2.6	2.9	2.2	3.0
MSS7348-153ME_	15	0.047	0.056	23	1.7	2.1	2.4	2.0	2.7
MSS7348-223ME_	22	0.067	0.080	18	1.5	1.8	2.0	1.7	2.3
MSS7348-333ME_	33	0.106	0.120	13	1.2	1.6	1.7	1.3	1.7
MSS7348-473ME_	47	0.132	0.150	12	1.0	1.2	1.4	1.2	1.6
MSS7348-683ME_	68	0.196	0.225	8.1	0.83	1.0	1.1	0.94	1.2
MSS7348-104ME_	100	0.297	0.320	7.0	0.71	0.84	0.92	0.77	1.0
MSS7348-154ME_	150	0.461	0.520	5.6	0.58	0.68	0.75	0.63	0.84
MSS7348-224ME_	220	0.586	0.624	4.8	0.50	0.58	0.64	0.55	0.74
MSS7348-334ME_	330	0.886	0.980	3.7	0.39	0.46	0.51	0.44	0.60
MSS7348-474ME_	470	1.28	1.38	3.1	0.35	0.41	0.45	0.37	0.50
MSS7348-684ME_	680	1.64	1.82	2.6	0.28	0.32	0.36	0.32	0.42
MSS7348-105ME_	1000	2.50	2.73	2.2	0.22	0.27	0.29	0.26	0.35

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

**MSS7348-105MEC**

**Termination:** **E** = RoHS compliant matte tin over nickel over phos bronze  
**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 (250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

**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.

**D** = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1000 parts per full reel).

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-A fixture in an Agilent/HP 4263B LCR meter.

3. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.

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

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.

6. Electrical specifications at 25°C.

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



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Document 879-1 Revised 09/27/22

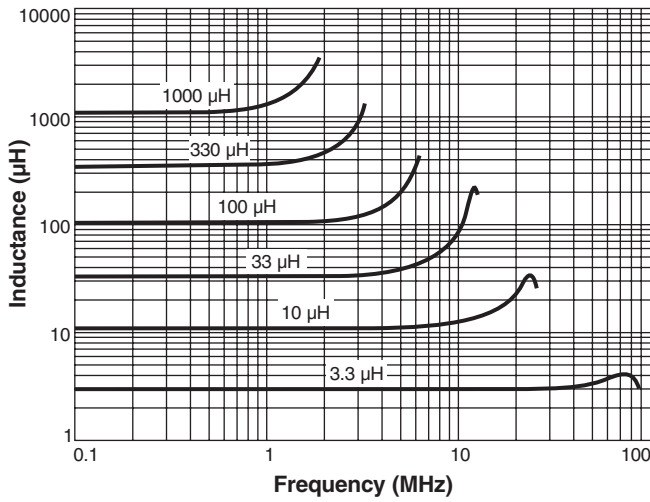
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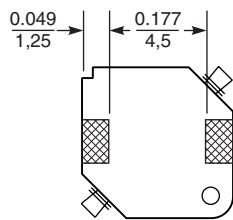
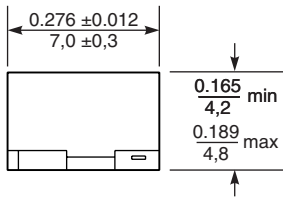
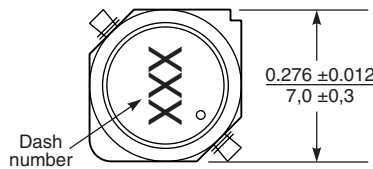
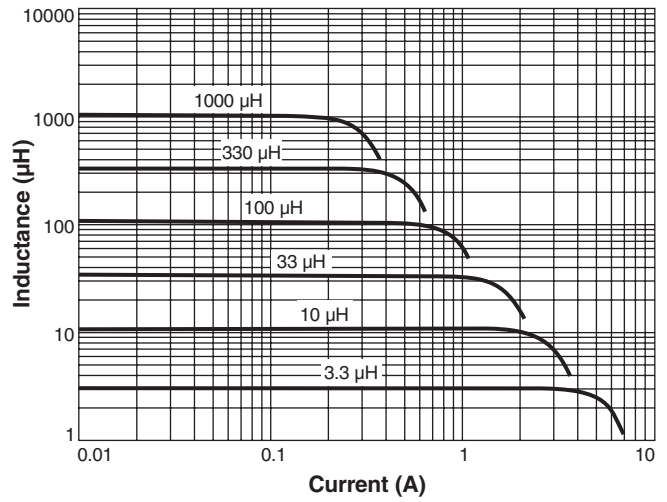


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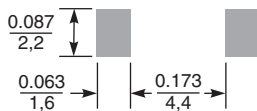
## Typical L vs Current



## Typical L vs Frequency



### Recommended Land Pattern



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



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