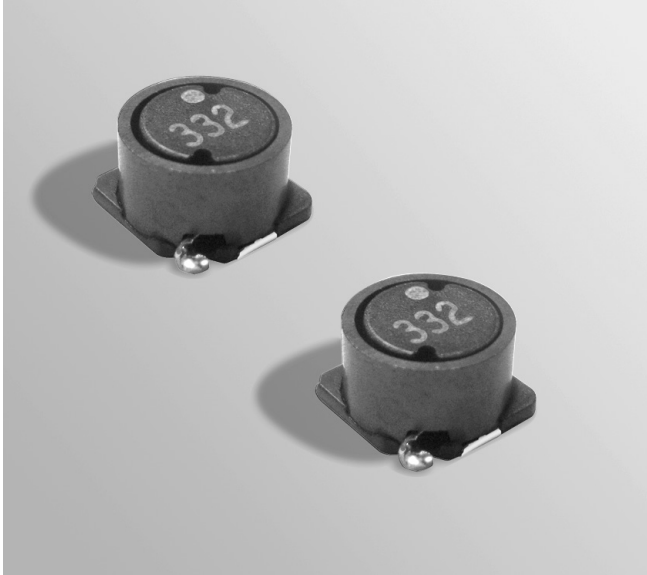




# Shielded Power Inductors – MSS7348



- Very low DCR – as low as 0.015 Ohms
- Current handling as high as 5.7 A
- AEC-Q200 Grade 3 qualified (–40°C to +85°C ambient)
- 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

**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)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**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).

B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

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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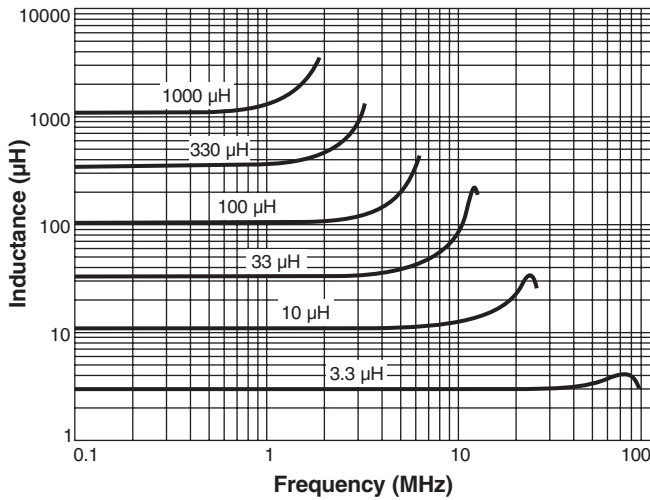
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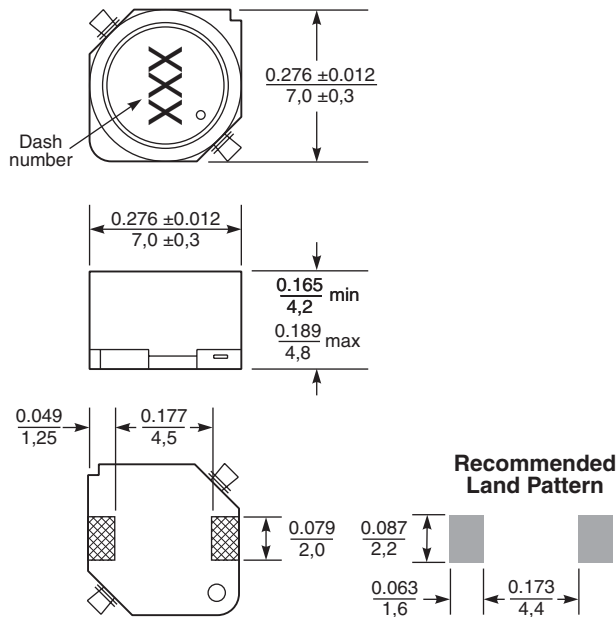
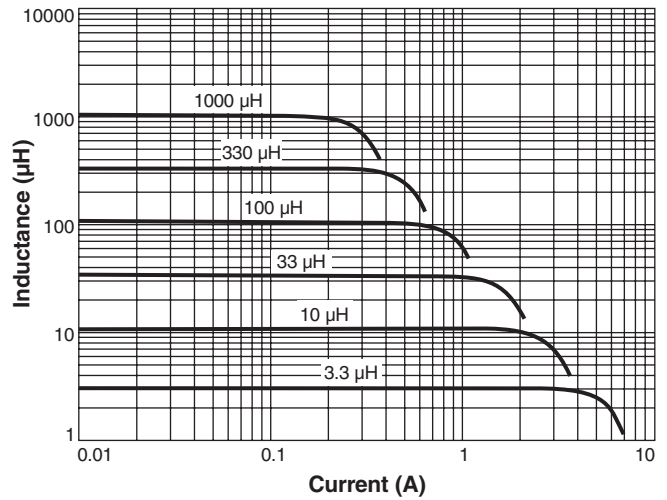


# Shielded Power Inductors – MSS7348

## Typical L vs Current



## Typical L vs Frequency



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



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