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) I rms 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.

Inductance | DCR (Ohms) | SRF max (MHz) | Isat (A) | Irms (A)
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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:
   - 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.
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Typical L vs Current

Typical L vs Frequency

Dimensions are in inches

Recommended Land Pattern

RoHS Compliant
Halogen Free
AEC Q000-88C

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