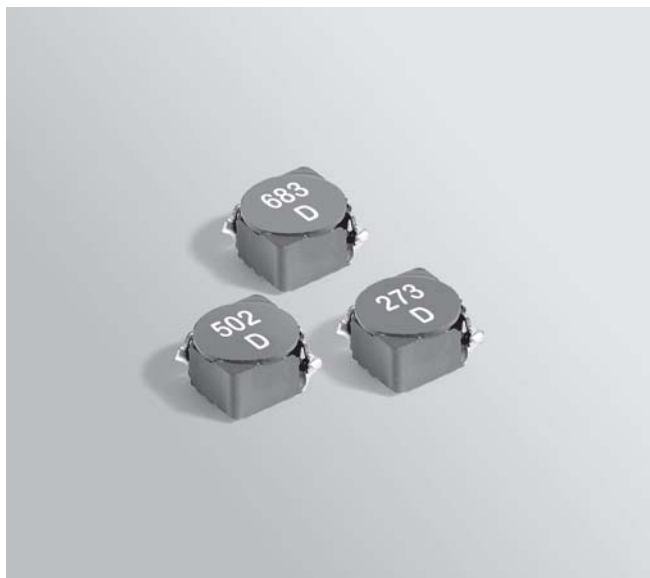


SMT Power Inductors – MSS7341



- 6.6 × 6.6 mm footprint; 4.1 mm high shielded inductors
- Low DCR and excellent current handling

Designer's Kit C385 contains 3 each of all values.

Core material Ferrite

Core and winding loss See www.coilcraft.com/coreloss

Terminations RoHS compliant gold over nickel over phos bronze. Other terminations available at additional cost.

Weight: 0.61 – 0.67 g

Ambient temperature –40°C to +85°C with I_{rms} current, +85°C to +125°C with derated current

Storage temperature Component: –40°C to +125°C.

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 1200/13" reel; Plastic tape: 16 mm wide, 0.35 mm thick, 12 mm pocket spacing, 4.5 mm pocket depth

PCB washing Only pure water or alcohol recommended

| Part number ¹ | Inductance ² (µH) | DCR max (Ohms) | SRF typ ³ (MHz) | Isat (A) ⁴ | | | I _{rms} (A) ⁵ | |
|--------------------------|---------------------------------|----------------------|----------------------------------|-----------------------|-------------|-------------|-----------------------------------|--------------|
| | | | | 10% drop | 20% drop | 30% drop | 20°C rise | 40°C rise |
| MSS7341-332NL_ | 3.3 ±30% | 0.020 | 58.0 | 2.74 | 3.28 | 3.72 | 3.95 | 5.00 |
| MSS7341-502NL_ | 5.0 ±30% | 0.024 | 46.0 | 2.30 | 2.82 | 3.16 | 3.40 | 4.70 |
| MSS7341-622NL_ | 6.2 ±30% | 0.027 | 42.0 | 2.18 | 2.66 | 2.98 | 3.05 | 4.30 |
| MSS7341-742NL_ | 7.4 ±30% | 0.031 | 40.0 | 1.92 | 2.32 | 2.56 | 2.80 | 4.10 |
| MSS7341-872NL_ | 8.7 ±30% | 0.034 | 35.0 | 1.78 | 2.12 | 2.36 | 2.80 | 3.90 |
| MSS7341-103ML_ | 10 ±20% | 0.038 | 32.0 | 1.64 | 1.92 | 2.10 | 2.80 | 3.80 |
| MSS7341-123ML_ | 12 ±20% | 0.053 | 26.2 | 1.48 | 1.76 | 1.92 | 2.45 | 3.30 |
| MSS7341-153ML_ | 15 ±20% | 0.057 | 24.0 | 1.36 | 1.60 | 1.78 | 2.05 | 3.00 |
| MSS7341-183ML_ | 18 ±20% | 0.078 | 22.5 | 1.20 | 1.46 | 1.62 | 1.85 | 2.65 |
| MSS7341-223ML_ | 22 ±20% | 0.082 | 21.5 | 1.02 | 1.26 | 1.42 | 1.70 | 2.35 |
| MSS7341-273ML_ | 27 ±20% | 0.109 | 19.0 | 1.00 | 1.14 | 1.22 | 1.50 | 2.10 |
| MSS7341-333ML_ | 33 ±20% | 0.124 | 18.0 | 0.91 | 1.04 | 1.16 | 1.50 | 1.95 |
| MSS7341-393ML_ | 39 ±20% | 0.138 | 17.0 | 0.85 | 1.01 | 1.12 | 1.50 | 1.90 |
| MSS7341-473ML_ | 47 ±20% | 0.155 | 14.2 | 0.74 | 0.92 | 1.00 | 1.50 | 1.85 |
| MSS7341-563ML_ | 56 ±20% | 0.202 | 13.4 | 0.68 | 0.80 | 0.87 | 1.25 | 1.60 |
| MSS7341-683ML_ | 68 ±20% | 0.276 | 12.0 | 0.62 | 0.73 | 0.80 | 1.00 | 1.35 |
| MSS7341-823ML_ | 82 ±20% | 0.324 | 11.0 | 0.57 | 0.66 | 0.72 | 1.00 | 1.25 |
| MSS7341-104ML_ | 100 ±20% | 0.358 | 10.5 | 0.54 | 0.64 | 0.71 | 0.90 | 1.15 |
| MSS7341-224ML_ | 220 ±20% | 0.780 | 5.0 | 0.35 | 0.41 | 0.47 | 0.57 | 0.78 |
| MSS7341-474ML_ | 470 ±20% | 1.45 | 3.0 | 0.24 | 0.28 | 0.32 | 0.43 | 0.57 |

1. Please specify **termination** and **packaging** codes:

MSS7341-474M L D

Termination: L = RoHS compliant gold 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: D = 13" machine-ready reel. EIA-481 embossed plastic tape (1200 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 D instead.

2. Inductance measured at 100 kHz, 0.1 V_{rms}, 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 which the inductance drops the specified amount from its value without current.
5. Current that causes the specified temperature rise from 25°C ambient.
6. Electrical specifications at 25°C.

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

SPICE models ON OUR WEB SITE OR CD

Coilcraft[®]

Specifications subject to change without notice.
Please check our website for latest information.

Document 383-1 Revised 10/20/09

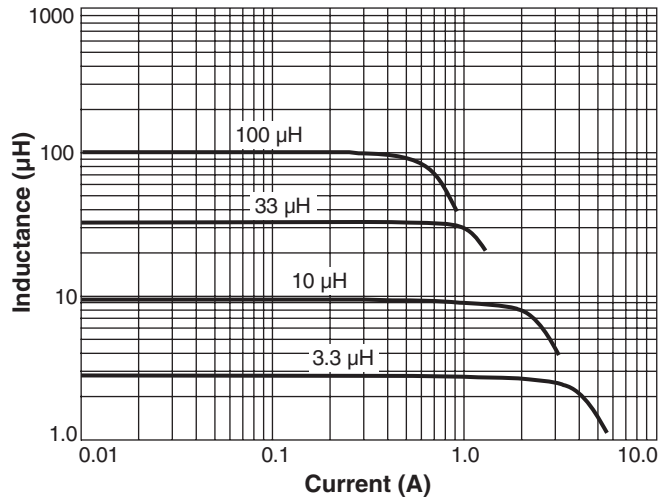
1102 Silver Lake Road Cary, Illinois 60013 Phone 847/639-6400 Fax 847/639-1469

E-mail info@coilcraft.com Web <http://www.coilcraft.com>

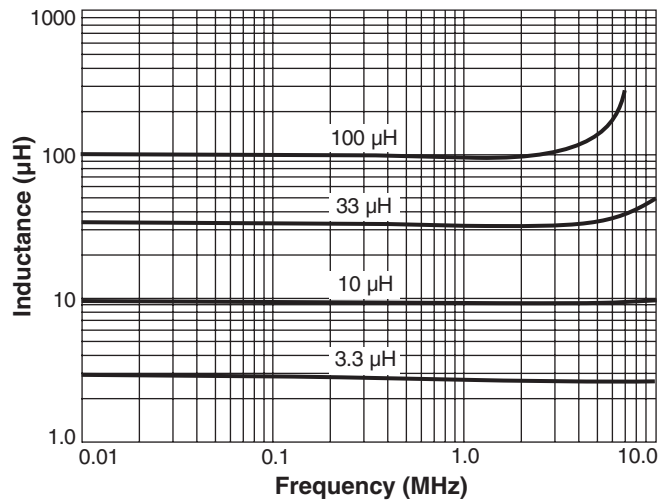


SMT Power Inductors – MSS7341

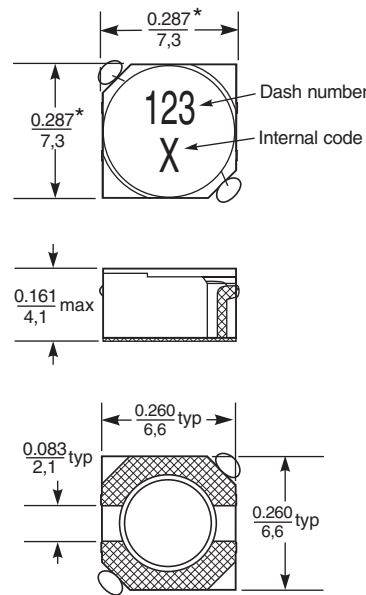
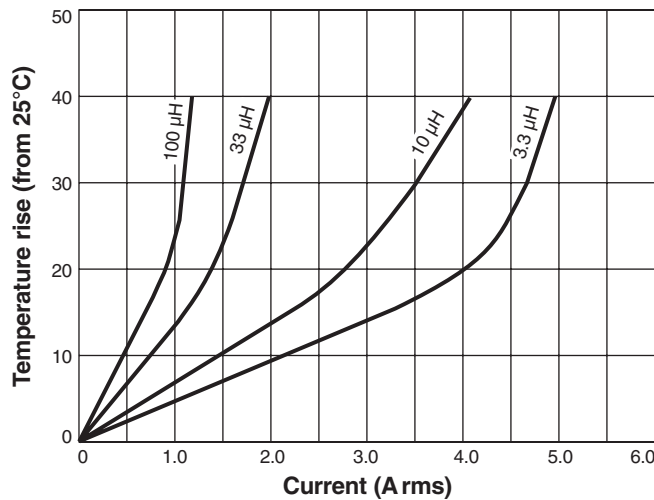
Typical L vs Current



Typical L vs Frequency

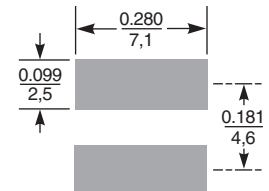


Temperature Rise vs Current



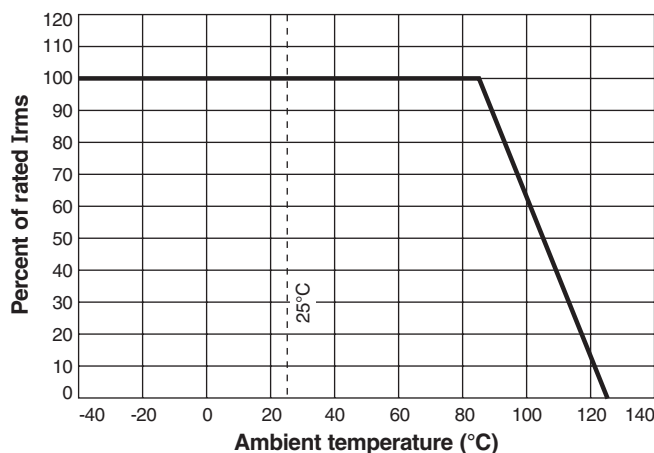
Parts manufactured prior to Sept. 2007 were marked with only the dash number.

* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.02 in / 0,51 mm.



Recommended Land Pattern

Irms Derating



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



Specifications subject to change without notice. Please check our website for latest information.

Document 383-2 Revised 10/20/09

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