



# Shielded 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](http://www.coilcraft.com/coreloss)

**Terminations** RoHS compliant matte tin over nickel over phos bronze (current production) or gold over nickel over phos bronze (prior production). Other terminations available at additional cost.

**Weight:** 0.61 – 0.67 g

**Ambient temperature** –40°C to +85°C with Irms 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 <sup>1</sup>	Inductance <sup>2</sup> (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
MSS7341-332NL_	3.3 ±30%	0.014	0.018	85	2.74	3.28	3.72	3.95	5.00
MSS7341-502NL_	5.0 ±30%	0.018	0.023	49	2.30	2.82	3.16	3.40	4.70
MSS7341-622NL_	6.2 ±30%	0.024	0.027	42	2.18	2.66	2.98	3.05	4.30
MSS7341-742NL_	7.4 ±30%	0.027	0.031	35	1.92	2.32	2.56	2.80	4.10
MSS7341-872NL_	8.7 ±30%	0.029	0.034	33	1.78	2.12	2.36	2.80	3.90
MSS7341-103ML_	10 ±20%	0.032	0.038	32	1.64	1.92	2.10	2.80	3.80
MSS7341-123ML_	12 ±20%	0.040	0.050	27	1.48	1.76	1.92	2.45	3.30
MSS7341-153ML_	15 ±20%	0.047	0.055	26	1.36	1.60	1.78	2.05	3.00
MSS7341-183ML_	18 ±20%	0.065	0.075	25	1.20	1.46	1.62	1.85	2.65
MSS7341-223ML_	22 ±20%	0.074	0.082	22	1.02	1.26	1.42	1.70	2.35
MSS7341-273ML_	27 ±20%	0.091	0.109	19	1.00	1.14	1.22	1.50	2.10
MSS7341-333ML_	33 ±20%	0.104	0.124	17	0.91	1.04	1.16	1.50	1.95
MSS7341-393ML_	39 ±20%	0.115	0.130	15	0.85	1.01	1.12	1.50	1.90
MSS7341-473ML_	47 ±20%	0.127	0.155	14	0.74	0.92	1.00	1.50	1.85
MSS7341-563ML_	56 ±20%	0.174	0.202	11	0.68	0.80	0.87	1.25	1.60
MSS7341-683ML_	68 ±20%	0.236	0.250	9.6	0.62	0.73	0.80	1.00	1.35
MSS7341-823ML_	82 ±20%	0.257	0.290	8.5	0.57	0.66	0.72	1.00	1.25
MSS7341-104ML_	100 ±20%	0.286	0.310	7.2	0.54	0.64	0.71	0.90	1.15
MSS7341-224ML_	220 ±20%	0.660	0.710	5.0	0.35	0.41	0.47	0.57	0.78
MSS7341-474ML_	470 ±10%	1.21	1.45	3.0	0.24	0.28	0.32	0.43	0.57
MSS7341-684KL_	680 ±10%	1.85	1.98	2.5	0.22	0.27	0.29	0.42	0.56

1. Specify **termination** and **packaging** codes:

MSS7341-474MLD

**Termination:** L = RoHS compliant matte tin over nickel over phos bronze (current production) or gold over nickel over phos bronze (prior production)

**Special order:**

T = RoHS tin-silver-copper (95.5/4/0.5) over gold over nickel over phos bronze or  
S = non-RoHS tin-lead (63/37) over gold over nickel over phos bronze.

**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 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 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.

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[www.coilcraft.com](http://www.coilcraft.com)

**US** +1-847-639-6400 [sales@coilcraft.com](mailto:sales@coilcraft.com)

**UK** +44-1236-730595 [sales@coilcraft-europe.com](mailto:sales@coilcraft-europe.com)

**Taiwan** +886-2-2264 3646 [sales@coilcraft.com.tw](mailto:sales@coilcraft.com.tw)

**China** +86-21-6218 8074 [sales@coilcraft.com.cn](mailto:sales@coilcraft.com.cn)

**Singapore** +65-6484 8412 [sales@coilcraft.com.sg](mailto:sales@coilcraft.com.sg)

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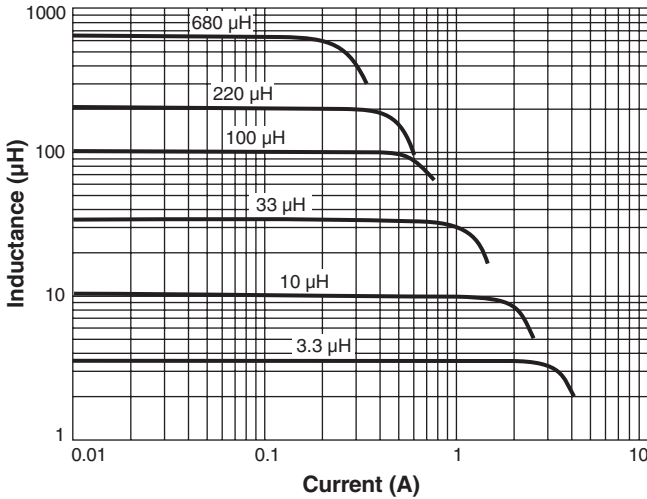
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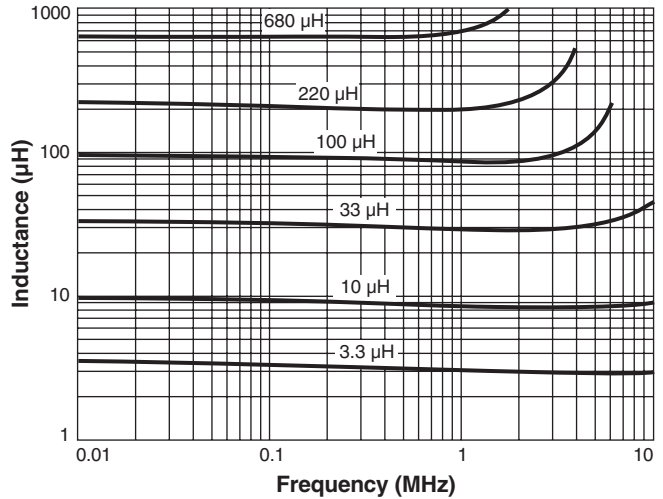


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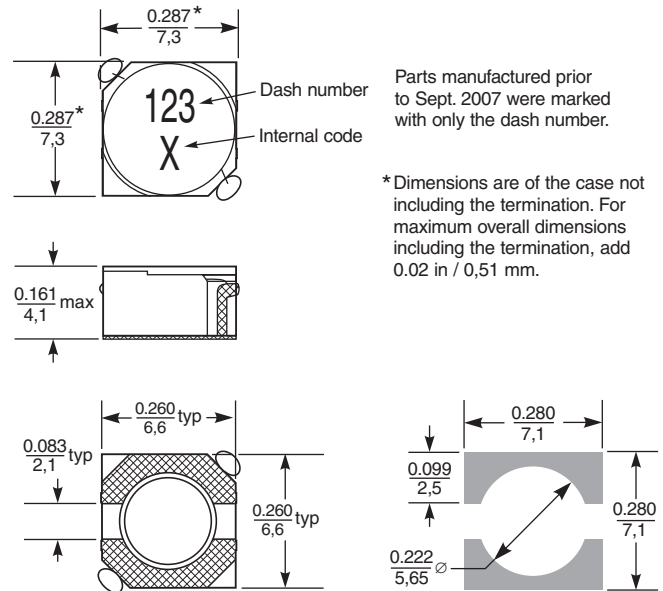
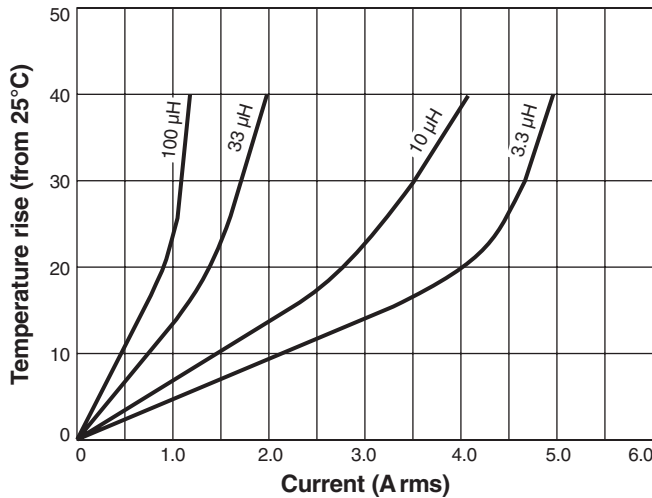
## Typical L vs Current



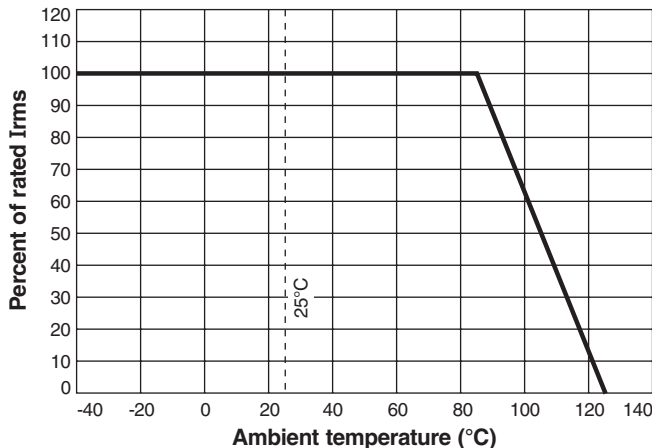
## Typical L vs Frequency



## Typical Temperature Rise vs Current



## Irms Derating



## Recommended Land Pattern

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



**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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