



HIGH TEMPERATURE

Shielded Power Inductors – MSS7341T



- Designed for high ambient temperatures – up to 125°C
- AEC-Q200 Grade 1 qualified
- Low DCR and excellent current handling

Core material Ferrite

Environment RoHS compliant, halogen free

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

Weight: 0.61 – 0.67 g

Ambient temperature –40°C to +125°C with Irms current, +125°C to +165°C with derated current

Storage temperature Component: –40°C to +165°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 300/7" reel; 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 (Ohms)		SRF typ ³ (MHz)	Isat (A) ⁴			Irms (A) ⁵	
		typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS7341T-332NL_	3.3 ±30%	0.014	0.018	85	2.8	3.4	3.7	3.95	5.00
MSS7341T-502NL_	5.0 ±30%	0.018	0.023	49	2.4	2.8	3.1	3.40	4.70
MSS7341T-622NL_	6.2 ±30%	0.024	0.027	42	2.1	2.5	2.7	3.05	4.30
MSS7341T-742NL_	7.4 ±30%	0.027	0.031	35	2.0	2.3	2.6	2.80	4.10
MSS7341T-872NL_	8.7 ±30%	0.029	0.034	33	1.8	2.1	2.3	2.80	3.90
MSS7341T-103ML_	10 ±20%	0.032	0.038	32	1.7	2.0	2.2	2.80	3.80
MSS7341T-123ML_	12 ±20%	0.040	0.050	27	1.6	1.8	2.0	2.45	3.30
MSS7341T-153ML_	15 ±20%	0.047	0.055	26	1.4	1.7	1.8	2.05	3.00
MSS7341T-183ML_	18 ±20%	0.065	0.075	25	1.3	1.5	1.6	1.85	2.65
MSS7341T-223ML_	22 ±20%	0.074	0.082	22	1.2	1.4	1.5	1.70	2.35
MSS7341T-273ML_	27 ±20%	0.091	0.109	19	1.0	1.2	1.3	1.50	2.10
MSS7341T-333ML_	33 ±20%	0.104	0.124	17	0.94	1.1	1.2	1.50	1.95
MSS7341T-393ML_	39 ±20%	0.115	0.130	15	0.86	1.0	1.1	1.50	1.90
MSS7341T-473ML_	47 ±20%	0.127	0.155	14	0.80	0.95	1.0	1.50	1.85
MSS7341T-563ML_	56 ±20%	0.174	0.202	11	0.72	0.86	0.94	1.25	1.60
MSS7341T-683ML_	68 ±20%	0.236	0.250	9.6	0.64	0.76	0.83	1.00	1.35
MSS7341T-823ML_	82 ±20%	0.257	0.290	8.5	0.57	0.68	0.74	1.00	1.25
MSS7341T-104ML_	100 ±20%	0.286	0.310	7.2	0.54	0.64	0.70	0.90	1.15
MSS7341T-224ML_	220 ±20%	0.660	0.710	5.0	0.39	0.47	0.51	0.57	0.78
MSS7341T-474KL_	470 ±10%	1.21	1.45	3.0	0.27	0.32	0.35	0.43	0.57
MSS7341T-684KL_	680 ±10%	1.85	1.98	2.5	0.20	0.25	0.27	0.42	0.56

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

MSS7341T-104MLD

Termination: L = RoHS compliant matte tin over nickel over phos bronze.
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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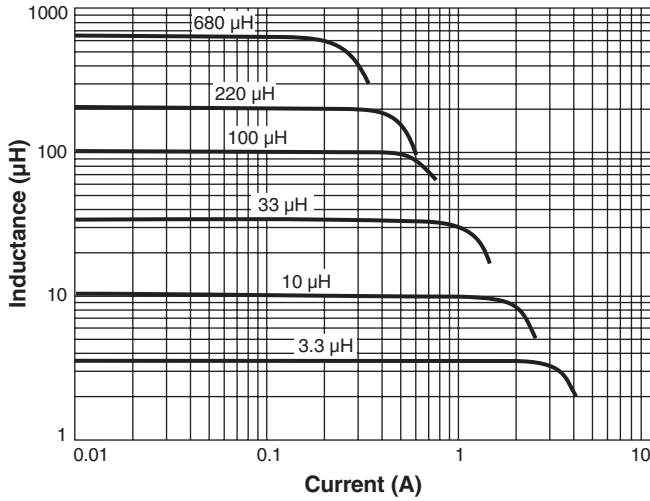
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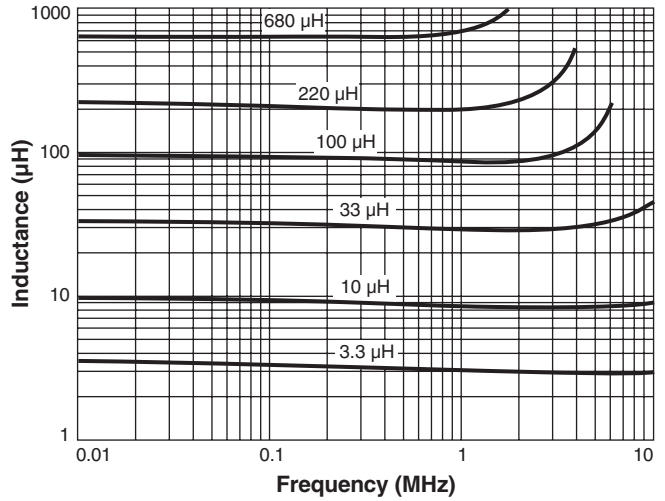


High Temperature Power Inductors – MSS7341T Series

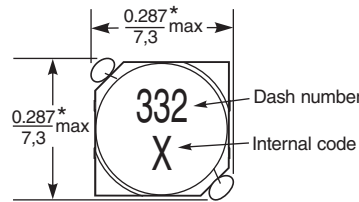
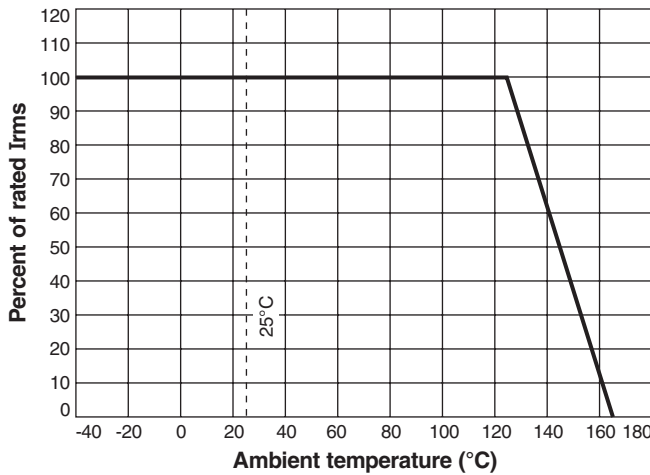
Typical L vs Current



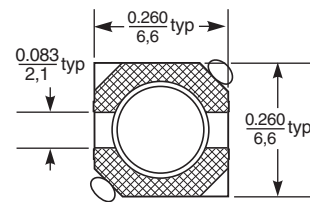
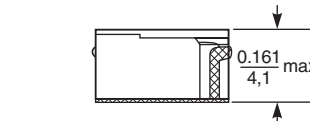
Typical L vs Frequency



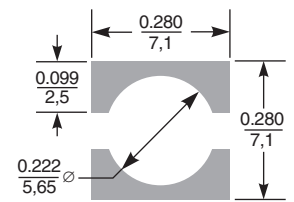
Irms Derating



*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



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



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