



# High Temp Power Inductors MSS7341T



- Designed for high ambient temperatures – up to 125°C
- AEC-Q200 Grade 1 (–40°C to +125°C)
- Low DCR and excellent current handling

**Core material** Ferrite

**Core and winding loss** See [www.coilcraft.com/coreloss](http://www.coilcraft.com/coreloss)

**Environment** RoHS compliant

**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 (40°C rise) Irms current.

**Maximum part temperature** +165°C (ambient + temp rise). [Derating](#).

**Storage temperature** Component: –40°C to +165°C.

Tape and reel packaging: –40°C to +80°C

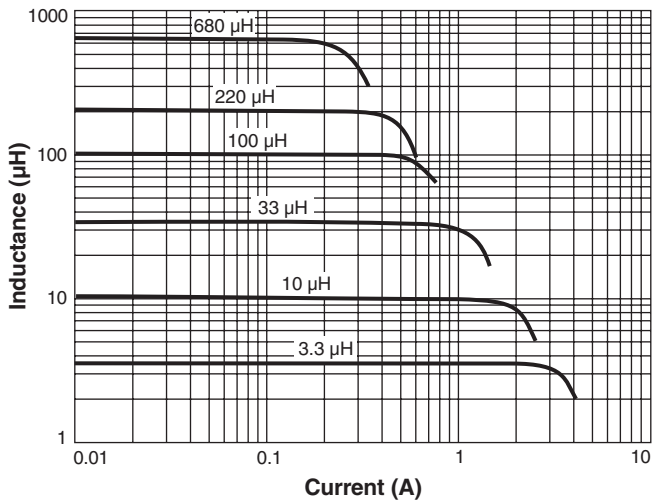
**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

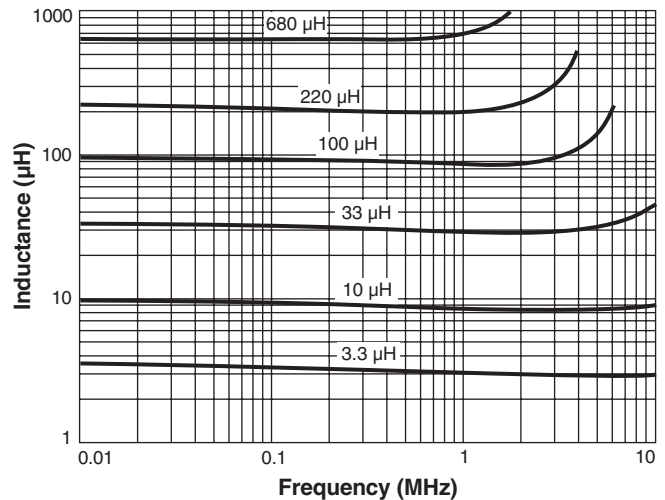
**Packaging** 300/7 reel; 1200/13" reel; Plastic tape: 16 mm wide, 0.35 mm thick, 12 mm pocket spacing, 4.5 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

## Typical L vs Current



## Typical L vs Frequency



# HIGH TEMPERATURE

## High Temperature Power Inductors – MSS7341T Series



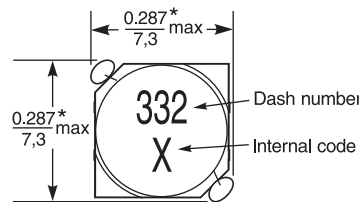
Part number <sup>1</sup>	Inductance <sup>2</sup> (µH)	Percent tolerance <sup>3</sup>	DCR (Ohms)		SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
			typ	max		10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS7341T-332_L_	3.3	<b>30,20</b>	0.014	0.018	85	2.8	3.4	3.7	3.95	5.00
MSS7341T-502_L_	5.0	<b>30,20</b>	0.018	0.023	49	2.4	2.8	3.1	3.40	4.70
MSS7341T-622_L_	6.2	<b>30,20</b>	0.024	0.027	42	2.1	2.5	2.7	3.05	4.30
MSS7341T-742_L_	7.4	<b>30,20</b>	0.027	0.031	35	2.0	2.3	2.6	2.80	4.10
MSS7341T-872_L_	8.7	<b>30,20</b>	0.029	0.034	33	1.8	2.1	2.3	2.80	3.90
MSS7341T-103ML_	10	<b>20</b>	0.032	0.038	32	1.7	2.0	2.2	2.80	3.80
MSS7341T-123ML_	12	<b>20</b>	0.040	0.050	27	1.6	1.8	2.0	2.45	3.30
MSS7341T-153ML_	15	<b>20</b>	0.047	0.055	26	1.4	1.7	1.8	2.05	3.00
MSS7341T-183ML_	18	<b>20</b>	0.065	0.075	25	1.3	1.5	1.6	1.85	2.65
MSS7341T-223ML_	22	<b>20</b>	0.074	0.082	22	1.2	1.4	1.5	1.70	2.35
MSS7341T-273ML_	27	<b>20</b>	0.091	0.109	19	1.0	1.2	1.3	1.50	2.10
MSS7341T-333ML_	33	<b>20</b>	0.104	0.124	17	0.94	1.1	1.2	1.50	1.95
MSS7341T-393ML_	39	<b>20</b>	0.115	0.130	15	0.86	1.0	1.1	1.50	1.90
MSS7341T-473ML_	47	<b>20</b>	0.127	0.155	14	0.80	0.95	1.0	1.50	1.85
MSS7341T-563ML_	56	<b>20</b>	0.174	0.202	11	0.72	0.86	0.94	1.25	1.60
MSS7341T-683ML_	68	<b>20</b>	0.236	0.250	9.6	0.64	0.76	0.83	1.00	1.35
MSS7341T-823ML_	82	<b>20</b>	0.257	0.290	8.5	0.57	0.68	0.74	1.00	1.25
MSS7341T-104ML_	100	<b>20</b>	0.286	0.310	7.2	0.54	0.64	0.70	0.90	1.15
MSS7341T-154ML_	150	<b>20</b>	0.438	0.475	6.0	0.45	0.53	0.58	0.86	1.14
MSS7341T-224ML_	220	<b>20</b>	0.660	0.710	5.0	0.39	0.47	0.51	0.57	0.78
MSS7341T-474KL_	470	<b>10</b>	1.21	1.45	3.0	0.27	0.32	0.35	0.43	0.57
MSS7341T-684KL_	680	<b>10</b>	1.85	1.98	2.5	0.20	0.25	0.27	0.42	0.56

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

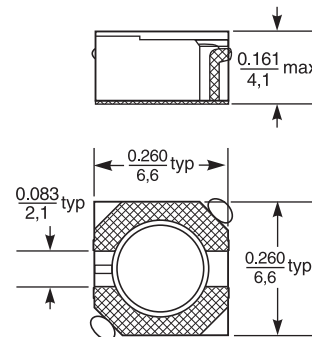
**MSS7341T-684KLD**

- Tolerance:** M = 20%, N = 30% (Table shows stock tolerances in bold.)
- 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:** C = 7" machine-ready reel. EIA-481 embossed plastic tape (300 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).  
D = 13" machine-ready reel. EIA-481 embossed plastic tape (1200 parts per full reel).  
B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

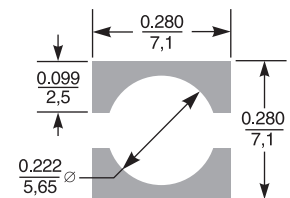
- 2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-A fixture in an Agilent/HP 4263B LCR meter.
- 3. Tolerances shown in bold are stocked for immediate shipment.
- 4. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
- 5. DC current at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information.](#)
- 6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information.](#)
- 7. Electrical specifications at 25°C.  
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



\*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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Document 725-2 Revised 11/18/21  
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