















ligh Voltage Power Inductors MSS1514V

- 15.5 x 15.5 mm footprint; 13.9 mm high shielded inductors
- High voltage rating of 800 V
- 6 inductance values from 33 μH to 1000 μH
- Low DCR and excellent current handling

Core material Ferrite

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

Environment RoHS compliant, halogen free

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

Weight: 9.6 - 10.6 g

Operating voltage 800 V max

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

T--4 /A\5

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 175/13" reel; Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 14.3 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

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| | Inductance ² | DCR max ³ | SRF tvp⁴ | isat (A)° | | | irms (A)° | |
|--------------------------|-------------------------|----------------------|----------|-----------|----------|----------|-----------|-----------|
| Part number ¹ | (µH) | (Ohms) | (MHz) | 10% drop | 20% drop | 30% drop | 20°C rise | 40°C rise |
| MSS1514V-333MED | 33 ±20% | 0.026 | 8.6 | 5.6 | 6.4 | 7.2 | 3.8 | 4.9 |
| MSS1514V-473MED | 47 ±20% | 0.038 | 7.3 | 4.7 | 5.3 | 5.9 | 3.0 | 3.9 |
| MSS1514V-104KED | 100 ±10% | 0.064 | 5.0 | 3.2 | 3.7 | 4.0 | 2.4 | 3.1 |
| MSS1514V-224KED | 220 ±10% | 0.152 | 3.0 | 2.2 | 2.5 | 2.7 | 1.6 | 2.2 |
| MSS1514V-474KED | 470 ±10% | 0.278 | 2.3 | 1.5 | 1.7 | 1.9 | 1.2 | 1.7 |
| MSS1514V-105KED | 1000 ±10% | 0.630 | 1.5 | 1.0 | 1.2 | 1.3 | 1.5 | 1.1 |

Please specify termination code:

MSS1514V-105KED

Tolerance: **K** = 10%, **M** = 20%

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

Special order:

Q = RoHS tin-silver-copper (95.5/4/0.5) or

P = non-RoHS tin-lead (63/37).

D = 13" machine-ready reel. EIA-481 embossed plastic tape (175 parts per full reel). Quantities less than full

reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.

- 3. DCR measured on a micro-ohmmeter and a Coilcraft CCF858 test
- 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.

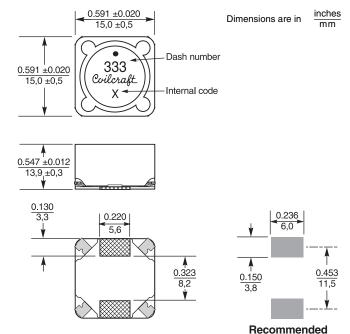
Click for temperature derating information.

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.







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Land Pattern

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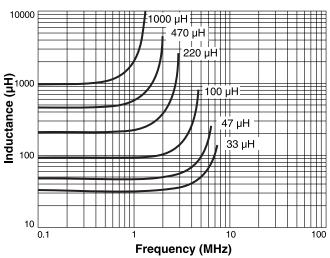
SMT High Voltage Power Inductors – MSS1514V Series







Typical L vs Frequency



Typical L vs Current

