High Temp Power Inductors MSS1246H

- Designed for high ambient temperatures
- Magnetic shielding allows high density mounting.
- AEC-Q200 Grade 1 (−40°C to +125°C)

**Designer’s Kit C510 contains 3 of each value**
Core material Ferrite
Core and winding loss See www.coilcraft.com/coreloss
Environmental RoHS compliant, halogen free
Terminations RoHS compliant matte tin over nickel over phos bronze. Other terminations available at additional cost.
Weight: 2.24 – 2.49 g
Operating voltage 400 V max
Ambient temperature −40°C to +125°C with (40°C rise)
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)

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

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<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance (µH)</th>
<th>DCR (mΩ)</th>
<th>SRF (MHz)</th>
<th>Isat (A) typ</th>
<th>Irms (A) typ</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSS1246H-102MED</td>
<td>1.0 ± 20%</td>
<td>6.0</td>
<td>120.0</td>
<td>16.5</td>
<td>8.2</td>
</tr>
<tr>
<td>MSS1246H-152MED</td>
<td>1.5 ± 20%</td>
<td>6.6</td>
<td>85.0</td>
<td>12.3</td>
<td>14.2</td>
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<tr>
<td>MSS1246H-222MED</td>
<td>2.2 ± 20%</td>
<td>8.6</td>
<td>68.0</td>
<td>10.1</td>
<td>11.8</td>
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<tr>
<td>MSS1246H-332MED</td>
<td>3.3 ± 20%</td>
<td>12.0</td>
<td>55.0</td>
<td>8.3</td>
<td>9.8</td>
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<tr>
<td>MSS1246H-422MED</td>
<td>4.2 ± 20%</td>
<td>13.5</td>
<td>46.0</td>
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<td>8.8</td>
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<tr>
<td>MSS1246H-562MED</td>
<td>5.6 ± 20%</td>
<td>17.5</td>
<td>45.0</td>
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<td>7.6</td>
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<td>MSS1246H-682MED</td>
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<td>19.5</td>
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<td>6.0</td>
<td>6.9</td>
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<tr>
<td>MSS1246H-822MED</td>
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<td>25.5</td>
<td>33.0</td>
<td>5.2</td>
<td>6.1</td>
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<td>50.0</td>
<td>4.3</td>
<td>5.2</td>
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<td>5.2</td>
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<tr>
<td>MSS1246H-153MED</td>
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<td>22.0</td>
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<td>4.5</td>
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<td>21.0</td>
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<td>20.0</td>
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<td>3.8</td>
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<td>18.0</td>
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<td>MSS1246H-333MED</td>
<td>33.2 ± 20%</td>
<td>78</td>
<td>15.0</td>
<td>2.6</td>
<td>3.0</td>
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</tbody>
</table>

1. Please specify termination and packaging codes:

   MSS1246H-105KED

   Termination: E=RoHS compliant matte tin 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 (800 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
   2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-A fixture in an Agilent/HP 4263B LCR meter or equivalent.
   3. DCR measured on a micro-ohmmeter and the coilcraft CCP858 test fixture.
   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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Click for temperature derating information.

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This product may not be used in medical or high risk applications without prior Coilcraft approval.
Specification subject to change without notice.
Please check web site for latest information.
Shielded Power Inductors – MSS1246H

**Typical L vs Frequency**

![Typical L vs Frequency Graph](image)

**Typical L vs Current**

![Typical L vs Current Graph](image)

**Packaging** 800/13” reel; Plastic tape: 24 mm wide, 0.35 mm thick, 16 mm pocket spacing, 5.3 mm pocket depth

*For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.012 inch (0.3 mm).*