# Backlight Inductors – DS1608B Series

- Specially designed for demanding backlighting applications
- High breakdown voltage and very low DCR

### Designer’s Kit C334
- Contains 3 of each value
- Core material: Ferrite

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

### Terminations
- RoHS compliant electroplated gold (<50 µin) over nickel over moly-manganese. Other terminations available at additional cost.

### Weight
- 0.14 – 0.16 g

### Ambient temperature
- –40°C to +85°C with Irms current, +85°C to +115°C with derated current

### Storage temperature
- Component: –40°C to +115°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
- 750/7” reel; 2500/13” reel
- Plastic tape: 12 mm wide, 0.28 mm thick, 4 mm pocket spacing, 3 mm pocket depth

### PCB washing

### Specifications

<table>
<thead>
<tr>
<th>Part number</th>
<th>L (mH) ±20%</th>
<th>DCR max (Ohms)</th>
<th>Insulation SRF (Mohms)</th>
<th>SRF typ (MHz)</th>
<th>Irms³ (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS1608B-104ML</td>
<td>0.10</td>
<td>0.95</td>
<td>&gt;10</td>
<td>12</td>
<td>220</td>
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<tr>
<td>DS1608B-154ML</td>
<td>0.15</td>
<td>1.4</td>
<td>&gt;10</td>
<td>10</td>
<td>200</td>
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<tr>
<td>DS1608B-224ML</td>
<td>0.22</td>
<td>1.7</td>
<td>&gt;10</td>
<td>8</td>
<td>180</td>
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<tr>
<td>DS1608B-334ML</td>
<td>0.33</td>
<td>2.2</td>
<td>&gt;10</td>
<td>6</td>
<td>160</td>
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<tr>
<td>DS1608B-474ML</td>
<td>0.47</td>
<td>3.8</td>
<td>&gt;10</td>
<td>5</td>
<td>140</td>
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<tr>
<td>DS1608B-684ML</td>
<td>0.68</td>
<td>4.9</td>
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<td>120</td>
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<tr>
<td>DS1608B-105ML</td>
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<td>DS1608B-155ML</td>
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<td>30</td>
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<td>30</td>
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<tr>
<td>DS1608B-685ML</td>
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<td>20</td>
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<tr>
<td>DS1608B-106ML</td>
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<td>74</td>
<td>&gt;10</td>
<td>0.8</td>
<td>10</td>
</tr>
</tbody>
</table>

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

   **DS1608B-106ML**

   - **Termination**: L = RoHS compliant gold over nickel over moly-manganese
   - **Special order**: T = RoHS tin-silver-copper (95.5/4/0.5) or S = non-RoHS tin-lead (63/37).
   - **Packaging**: C = 7” machine-ready reel. EIA-481 embossed plastic tape (750 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 C instead. D = 13” machine-ready reel. EIA-481 embossed plastic tape (2500 parts per full reel).

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


4. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
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Typical Inductance vs. Current

Irms Derating

Dimensions are in inches
Dimensions are in mm

RoHS Compliant

Note:

- Dimensions are in inches and millimeters.
- Irms Derating graph shows the percent of rated Irms as a function of ambient temperature.

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