Backlight Inductors – DO1607B Series

The low profile DO1607B Series has the high breakdown voltage ratings required for backlight applications. Only 2.49 mm high, they have a footprint of 6.6 x 4.5 mm.

These inductors are constructed of high temperature materials that provide excellent heat deflection to prevent damage during solder reflow. Standard inductance values range from 1 to 6.8 mH and custom values are available to meet specific requirements.

Coilcraft Designer’s Kit C335 contains samples of each of the standard parts shown. To order, contact Coilcraft or visit http://order.coilcraft.com.

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

   DO1607B-685MLC

   Termination: L = RoHS compliant electroplated gold (<50 µin) 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). 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 (2500 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 tested at 0.1 Vrms, 100 kHz, 0 Adc on Agilent/HP 4192A.
3. DCR tested on Cambridge Technology 510-A with Coilcraft CCF-859 fixture.
4. DC current at which the inductance drops 10% (typ) from its value without current.
5. Average current for a 40°C rise above 25°C ambient.
6. Operating temperature -40°C to +85°C.
7. Electrical specifications at 25°C. Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

<table>
<thead>
<tr>
<th>Part number1</th>
<th>L2 (mH) ±20%</th>
<th>DCR3 (Ohms) max</th>
<th>Insulation core-winding (MOhms)</th>
<th>Isat4 (mA)</th>
<th>Irms5 (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO1607B-105ML</td>
<td>1.0</td>
<td>19</td>
<td>&gt;10</td>
<td>100</td>
<td>150</td>
</tr>
<tr>
<td>DO1607B-155ML</td>
<td>1.5</td>
<td>21</td>
<td>&gt;10</td>
<td>75</td>
<td>140</td>
</tr>
<tr>
<td>DO1607B-225ML</td>
<td>2.2</td>
<td>42</td>
<td>&gt;10</td>
<td>60</td>
<td>100</td>
</tr>
<tr>
<td>DO1607B-335ML</td>
<td>3.3</td>
<td>52</td>
<td>&gt;10</td>
<td>50</td>
<td>90</td>
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<tr>
<td>DO1607B-475ML</td>
<td>4.7</td>
<td>80</td>
<td>&gt;10</td>
<td>45</td>
<td>75</td>
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<tr>
<td>DO1607B-685ML</td>
<td>6.8</td>
<td>125</td>
<td>&gt;10</td>
<td>40</td>
<td>60</td>
</tr>
</tbody>
</table>

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

Recommended Land Pattern

Dimensions are in inches

Weight: 0.12 – 0.13 g
Tape and reel: 750/7” reel; 2500/13” reel Plastic tape: 12 mm wide, 0.28 mm thick, 8 mm pocket spacing, 3.0 mm pocket depth