Common Mode Chokes – LPD3015

- Only 1.4 mm high and 3 mm square
- Ideal for use in both power line and signal line applications
- Common- and differential-mode filtering in a single device
- Up to 540 MHz differential mode cutoff frequency
- Can be used as coupled inductors for SEPIC applications

Core material: Ferrite
Weight: 45 – 52 mg

Environmental: RoHS compliant, halogen free
Terminations: RoHS compliant matte tin over nickel over silver. Other terminations available at additional cost.

Ambient temperature: –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature: +125°C (ambient + temp rise).

Storage temperature: Component: –40°C to +125°C.
Tape and reel packaging: –40°C to +80°C

Winding to winding isolation: 100 Vrms, one minute
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): 10.06 per billion hours / 9.940E+07 hours, calculated per Telcordia SR-332

Packaging: 1000/7” reel; 3500/13” reel. Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 1.65 mm pocket depth

Recommended pick and place nozzle: OD: 3 mm; ID: ≤1.5 mm


Dimensions are in inches

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Dimensions are in inches
# Common Mode Chokes – LPD3015 Series

<table>
<thead>
<tr>
<th>Partnumber</th>
<th>Common mode impedance max (kOhms)</th>
<th>Cutoff frequency (MHz)</th>
<th>Inductance (µH)</th>
<th>DCR max (Ohms)</th>
<th>Isolation (Vrms)</th>
<th>I rms (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPD3015-391MR</td>
<td>1.03 @ 330 MHz</td>
<td>540</td>
<td>0.312</td>
<td>0.39</td>
<td>0.071</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-561MR</td>
<td>1.44 @ 240 MHz</td>
<td>540</td>
<td>0.448</td>
<td>0.56</td>
<td>0.079</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-102MR</td>
<td>2.43 @ 160 MHz</td>
<td>330</td>
<td>0.800</td>
<td>1.0</td>
<td>0.129</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-152MR</td>
<td>3.56 @ 130 MHz</td>
<td>330</td>
<td>1.20</td>
<td>1.5</td>
<td>0.204</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-182MR</td>
<td>4.37 @ 110 MHz</td>
<td>280</td>
<td>1.44</td>
<td>1.8</td>
<td>0.273</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-222MR</td>
<td>4.67 @ 100 MHz</td>
<td>330</td>
<td>1.76</td>
<td>2.2</td>
<td>0.300</td>
<td>100</td>
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<tr>
<td>LPD3015-332MR</td>
<td>7.28 @ 81 MHz</td>
<td>220</td>
<td>2.64</td>
<td>3.3</td>
<td>0.337</td>
<td>100</td>
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<tr>
<td>LPD3015-472MR</td>
<td>10.7 @ 66 MHz</td>
<td>210</td>
<td>3.76</td>
<td>4.7</td>
<td>0.503</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-682MR</td>
<td>12.1 @ 54 MHz</td>
<td>290</td>
<td>5.44</td>
<td>6.8</td>
<td>0.622</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-103MR</td>
<td>17.8 @ 47 MHz</td>
<td>330</td>
<td>8.00</td>
<td>10</td>
<td>1.040</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-153MR</td>
<td>22.6 @ 33 MHz</td>
<td>140</td>
<td>12.0</td>
<td>15</td>
<td>1.420</td>
<td>100</td>
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<tr>
<td>LPD3015-183MR</td>
<td>29.0 @ 31 MHz</td>
<td>94</td>
<td>14.4</td>
<td>18</td>
<td>1.550</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-223MR</td>
<td>27.3 @ 24 MHz</td>
<td>88</td>
<td>17.6</td>
<td>22</td>
<td>1.89</td>
<td>100</td>
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<tr>
<td>LPD3015-333MR</td>
<td>41.1 @ 21 MHz</td>
<td>59</td>
<td>26.4</td>
<td>33</td>
<td>2.84</td>
<td>100</td>
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<tr>
<td>LPD3015-473MR</td>
<td>48.7 @ 18 MHz</td>
<td>50</td>
<td>37.6</td>
<td>47</td>
<td>4.03</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-683MR</td>
<td>64.5 @ 14 MHz</td>
<td>48</td>
<td>54.4</td>
<td>68</td>
<td>6.11</td>
<td>100</td>
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<tr>
<td>LPD3015-104MR</td>
<td>94.7 @ 13 MHz</td>
<td>47</td>
<td>80.0</td>
<td>100</td>
<td>8.54</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-124MR</td>
<td>116 @ 11 MHz</td>
<td>37</td>
<td>96.0</td>
<td>120</td>
<td>9.23</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-154MR</td>
<td>135 @ 9.3 MHz</td>
<td>27</td>
<td>120</td>
<td>150</td>
<td>12.40</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-184MR</td>
<td>170 @ 8.0 MHz</td>
<td>39</td>
<td>144</td>
<td>180</td>
<td>15.32</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-224MR</td>
<td>155 @ 7.1 MHz</td>
<td>27</td>
<td>176</td>
<td>220</td>
<td>18.56</td>
<td>100</td>
</tr>
<tr>
<td>LPD3015-334MR</td>
<td>222 @ 5.9 MHz</td>
<td>16</td>
<td>264</td>
<td>330</td>
<td>27.70</td>
<td>100</td>
</tr>
</tbody>
</table>

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

   LPD3015-334MR

   **Termination:** R = Matte tin over nickel over silver
   Special order, added cost:
   Q = RoHS tin-silver-copper (95.5/4/0.5) or
   P = non-RoHS tin-lead (63/37)

   **Packaging:** C = 7" machine-ready reel. EIA-481 embossed plastic tape (1000 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. Factory order only, not stocked (3500 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. Frequency at which the differential mode attenuation equals 3 dB
3. Inductance shown for each winding, measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent.
4. DCR is for each winding.
5. Interwinding isolation (hipot) tested for one minute.
6. Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.
Common Mode Chokes – LPD3015 Series

Typical Attenuation (Ref: 50 Ohms)

Typical Impedance vs Frequency