Dual Inductor for Class-D RA7231-AL

- AEC-Q200 Grade 1 qualified
- Dual inductors for use in Class-D output filters
- A single shielded package contains both coils.
- Very low magnetic coupling
- Designed for 40 Watts into 2 Ohm load
- Less than 1% drop in inductance up to 12.3 A

Core material Ferrite
Terminations RoHS compliant tin-silver (96.5/3.5) over copper.
Weight 12.3 g
Ambient temperature –40°C to +125°C with Irms current
Maximum part temperature +165°C (Ambient + temperature rise)
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)
Tape and reel packaging 150/13″ reel Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 16.1 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance1</th>
<th>DCR max2</th>
<th>SRF typ3</th>
<th>Isat (A)4</th>
<th>I rms (A)5</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA7231-AL_</td>
<td></td>
<td></td>
<td></td>
<td>10% drop</td>
<td>20% drop</td>
</tr>
<tr>
<td>L1</td>
<td>±10% (µH)</td>
<td>(mOhms)</td>
<td>(MHz)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L2</td>
<td>5.0</td>
<td>6.0</td>
<td>34</td>
<td>15.5</td>
<td>16.6</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

RA7231-ALD

Packaging: D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).

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 D.

2. Inductance measured at 100 kHz, 1.0 Vrms, 0 Adc using an Agilent/HP 4284A impedance analyzer. Minimum inductance is 4.5 µH at 11.5 Adc.
3. DCR is for each winding, measured on a micro-ohmmeter.
4. SRF measured using Agilent/HP 8753D network analyzer.
5. DC current (typical) at which the inductance drops the specified amount from its value without current.
6. Current applied to windings at the same time that causes the specified temperature rise from 25°C ambient.
7. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
Class-D Dual Inductor – RA7231-AL

L vs Current

Recommended Land Pattern

Dimensions are in inches / mm

0.1 1.0 10 100
Current (A)

Inductance (µH)

0.1 1.0 10 100
Current (A)

Inductance (µH)