SMT Power Transformers

For Analog Devices Isolated
RS-485 Transceivers

• Developed for Analog Devices ADM2482E, ADM2485 and ADM2487E RS-485 Transceivers for stepping up 5 V or 3.3 V to 6 V.
• Center tapped primary and secondary windings
• AEC-Q200 Grade 1 qualified (−40°C to +125°C ambient)
• 2500 Vrms, one minute interwinding isolation.

Core material Ferrite
Terminations RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.
Weight 0.94 – 1.0 g
Ambient temperature −40°C to +125°C
Storage temperature Component: −40°C to +125°C.
Tape and reel packaging: −40°C to +80°C
Resistance to soldering heat Max three 40 second reflo ws 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 600/13” reel Plastic tape: 24 mm wide, 0.37 mm thick, 16 mm pocket spacing, 6.1 mm pocket depth
PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

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<table>
<thead>
<tr>
<th>Part number1</th>
<th>Pri/sec voltage</th>
<th>Inductance2 min (µH)</th>
<th>DCR max (Ohms)3 pri/sec</th>
<th>Leakage inductance4 max (µH)</th>
<th>Volt-time product5 (V-µsec)</th>
<th>Power6 (W)</th>
<th>Turns ratio7 pri : sec</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA2303-AL_</td>
<td>5 V to 6 V</td>
<td>45.6</td>
<td>0.130</td>
<td>0.260</td>
<td>34.4</td>
<td>7.2</td>
<td>1:1.5</td>
</tr>
<tr>
<td>DA2304-AL_</td>
<td>3.3 V to 6 V</td>
<td>17.8</td>
<td>0.086</td>
<td>0.232</td>
<td>21.5</td>
<td>7.2</td>
<td>1:2.2</td>
</tr>
</tbody>
</table>

1. When ordering, please specify termination and packaging codes:
   - DA2303-ALD
   - DA2304-ALD

2. Inductance is tested between pins 4 and 3 at 500 kHz, 0.5 Vrms, 0 Adc.
3. DCR is per winding.
4. Leakage inductance is for the primary with both windings connected in series and with the secondary windings shorted.
5. Volt-time product is based on a flux density of 2500 gauss, measured between pins 4 and 1 with pins 2 and 3 connected.
6. Calculated output power based on 150 kHz operating frequency. Power varies depending on application.
7. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.