SMT Power Transformers

- Center tapped primary and secondary windings
- AEC-Q200 Grade 1 (~-40°C to +125°C)
- 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 refows 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

PCB washing: Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

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### Specifications

<table>
<thead>
<tr>
<th>Part number</th>
<th>Pri/sec voltage</th>
<th>Inductance (µH)</th>
<th>DCR max (Ohms)</th>
<th>Leakage inductance (µH)</th>
<th>Volt-time product (V-µsec)</th>
<th>Power (W)</th>
<th>Turns ratio</th>
<th>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>
<td></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>
<td></td>
</tr>
</tbody>
</table>

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

#### Termination:
- L = RoHS compliant tin-silver over tin over nickel over phos bronze.
- Special order:
  - T = RoHS tin-silver-copper (95.5/4/0.5) or non-RoHS tin-lead (63/37).
- S = RoHS tin-lead (63/37).

#### Packaging:
- D = 13″ machine ready reel. EIA-481 embossed plastic tape (600 per full reel). 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 is tested between pins 4 and 3 at 500 kHz, 0.5 Vrms, 0 Ads.
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 for the primary, 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.

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**Package Diagram**

- Dot indicates pin 1
- Internal code
- Primary windings and secondary windings to be connected in series on the PC board.

**Dimensions**

- Recommended Land Pattern
- Recommended Tape Width: 0.038
- Recommended Tape Thick: 0.0063
- Recommended Tape Length: 0.0358
- Recommended Tape Hole: 0.020
- Recommended Tape Pocket Width: 0.038
- Recommended Tape Pocket Thick: 0.0063
- Recommended Tape Pocket Length: 0.0358
- Recommended Tape Pocket Hole: 0.020

**Packaging**

- 800/13″ reel
- Plastic tape: 24 mm wide, 0.037 mm thick, 16 mm pocket spacing, 6.1 mm pocket depth

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**Contact Information**

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