## Isolation Transformer – WA8582-AL

![Image of transformer](image)

- **AEC-Q200 Grade 1 (–40°C to +125°C)**
- **Designed specifically for automotive active cell balance battery management system**
- **1500 Vrms, one minute primary to secondary isolation (hipot); 500 Vrms winding to core isolation**
- **Suitable for power driver ICs, low power isolation, gate drive and other power applications**

### Core material
- Ferrite

### Terminations
- Tin-silver over tin over nickel over phosph bronze

### Weight
- 0.95 g

### Ambient temperature
- –40°C to +125°C

### Maximum part temperature
- +165°C (ambient + temp rise)

### 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 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

### PCB washing
- Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

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<table>
<thead>
<tr>
<th>Part number</th>
<th>Pri / sec voltage</th>
<th>Inductance±25% (µH)</th>
<th>DCR max (Ohms)</th>
<th>Volt-time product</th>
<th>Power</th>
<th>Turns ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA8582-AL</td>
<td>5.0 V to 5.0 V</td>
<td>136.8</td>
<td>0.310</td>
<td>0.475</td>
<td>22.7</td>
<td>2.0</td>
</tr>
</tbody>
</table>

1. When ordering, please specify a **packaging** code:

- **WA8582-ALD**: 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 for the primary, measured from pins 1 – 2 at 250 kHz, 0.1 Vrms.

3. DCR is for each winding of the primary and secondary.

4. Volt-time product is for the primary, between pin 1 and 4, with 2 and 3 connected

5. Calculated output power based on 250 kHz operating frequency. Power varies depending on application

6. Electrical specifications at 25°C.

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

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**Recommended Land Pattern**

- **Packaging**: 600/13” reel; Plastic tape: 24 mm wide, 0.37 mm thick, 16 mm pocket spacing, 6.1 mm pocket depth

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**Dimensions are in**:
- inches
- mm

**Dot indicates pin 1**

**Internal code**

**Primary**
- 1
- 2
- 3
- 4

**Secondary**
- 5
- 6
- 7
- 8

Pin 2 and 3 and pin 6 and 7 to be connected on the PCB board.