Forward Converter Transformer

For Akros AS1130 PoE Controller

- Developed for Akros Silicon AS1130, 30 W PoE Controller with Integrated DC-DC Conversion
- Designed for forward topology operating at 350 kHz
- 1500 Vrms, one minute isolation from primary to secondary

Core material: Ferrite
Terminations: RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.
Weight: 10.7 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 refloows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL): 1 (unlimited floor life at <30°C / 85% relative humidity)

Packaging:
- 175 per 13″ reel, Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 11.9 mm pocket depth

1. When ordering, please specify a packaging code:

   **GA3291-AL** = 13″ machine ready reel. EIA-481 embossed plastic tape (175 parts 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.

<table>
<thead>
<tr>
<th>Part number¹</th>
<th>Inductance² ±25% (µH)</th>
<th>DCR max (Ohms)³ pri sec</th>
<th>Leakage inductance⁴ max (µH)</th>
<th>Input voltage range (V)</th>
<th>Turns ratio⁵ pri : sec</th>
<th>Output</th>
<th>Input filter inductor</th>
<th>Output filter inductor</th>
</tr>
</thead>
<tbody>
<tr>
<td>GA3291-AL___</td>
<td>203</td>
<td>0.065 0.031</td>
<td>0.215</td>
<td>36 – 57</td>
<td>1 : 0.923</td>
<td>12 V 2.5 A</td>
<td>DO1608C-103</td>
<td>MSS1278-683</td>
</tr>
</tbody>
</table>

2. Inductance is measured at 300 kHz, 0.6 Vrms, 0 Adc.
3. DCR for the primary is measured from pin 1 to pin 3.
4. Leakage inductance is for the primary (pin 1 to pin 3) and is measured with the secondary shorted.
5. Turns ratio is based on the entire the primary winding (pin 1 to pin 3).
6. Electrical specifications at 25°C.

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

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Recommended Land Pattern

- Parts manufactured prior to December 2011 may be marked differently.
- Dot indicates pin 1
- Parts are marked in accordance with the RoHS requirements.
- Primary is pin 1 to pin 3. Terminal 2 is for internal connection only. Do not connect terminal 2 to ground or any circuitry.

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Dimensions are in inches mm

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