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)
Failures in Time (FIT) / Mean Time Between Failures (MTBF) 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332
Packaging 175 per 13" reel Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 11.9 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

1. When ordering, please specify a packaging code:

Packaging: D = 13" machine ready reel. EIA-481 embossed plastic tape (175 parts per full reel).
B = Less than full reel. In tape, but not machine ready.
To have a leader and trailer added ($25 charge), use code letter D instead.

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.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance ±25% (µH)</th>
<th>DCR max (Ohms)</th>
<th>Leakage inductance max (µH)</th>
<th>Input voltage range (V)</th>
<th>Turns ratio</th>
<th>Output filter inductor</th>
</tr>
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<tbody>
<tr>
<td>GA3291-AL</td>
<td>203</td>
<td>0.065</td>
<td>0.031</td>
<td>36 – 57</td>
<td>1 : 0.923</td>
<td>12 V, 2.5 A DO1608C-103</td>
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</table>

Part number1
Inductance2
±25% (µH)
DCR max (Ohms)3
Leakage inductance4
max (µH)
Input voltage range (V)
Turns ratio5
Output filter inductor
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