PoE Transformer
For Maxim MAX5941B
PoE Interface/PWM Controller

- Designed for forward topology
- Operates at 275 kHz, at a 50% duty cycle

**Core material** Ferrite

**Terminations** RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 5.6 g

**Ambient temperature** –40°C to +85°C

**Storage temperature** Component: –40°C to +85°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)**

- 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging** 200 per 13" reel Plastic tape: 44 mm wide, 0.35 mm thick, 28 mm pocket spacing, 9.6 mm pocket depth

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

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance min (µH)</th>
<th>DCR max (Ohms)</th>
<th>Leakage inductance max (µH)</th>
<th>Input voltage range (V)</th>
<th>Turns ratio</th>
<th>Isolation</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>B0863-BL_</td>
<td>165</td>
<td>0.061 (pri)</td>
<td>0.75</td>
<td>28 – 60</td>
<td>pri:sec 1:0.29, pri:reset 1:1, pri:drive 1:0.24, pri:bias 1:1.3</td>
<td>1500 Vrms</td>
<td>3.3 V, 4 A</td>
</tr>
</tbody>
</table>

1. When ordering, please specify a packaging code:

**B0863-BL_**

**Packaging:**
- **D** = 13” machine ready reel. EIA-481 embossed plastic tape (200 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 for the primary, measured at 10 kHz, 0.1 Vrms, 0 Adc.
3. DCR for the secondary is measured with the windings connected in parallel.
4. Leakage inductance is for the primary and is measured with all other windings shorted.
5. Turns ratio is with the secondary windings connected in parallel.
6. Isolation is measured from the primary, reset and bias windings to the secondary and drive windings.
7. Output is with the secondary windings connected in parallel.
8. Electrical specifications at 25°C. Refer to Doc362 “Soldering Surface Mount Components” before soldering.

Secondary windings to be connected in parallel on PC board.
PoE Transformer for Maxim MAX5941B

Dot indicates pin 1

Parts manufactured prior to December 2011 may be marked differently.

Dimensions are in inches/mm