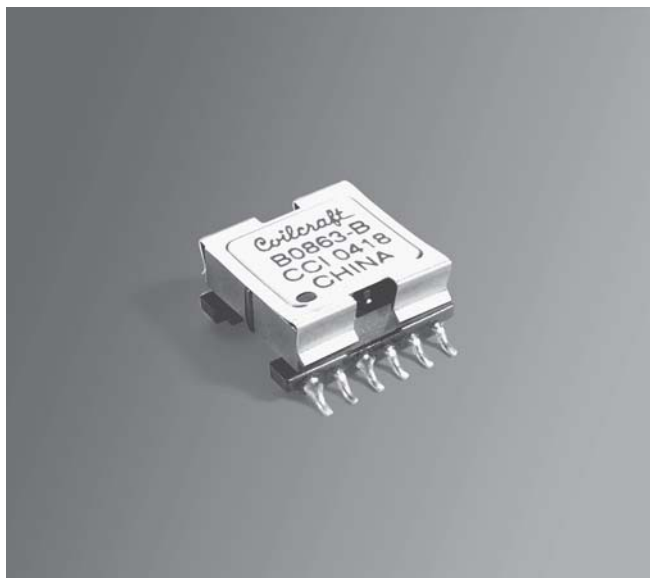




# PoE Transformer

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 phosphorus 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.

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** Only pure water or alcohol recommended

| Part number <sup>1</sup> | Inductance <sup>2</sup><br>min (μH) | DCR max <sup>3</sup><br>(Ohms)   | Leakage inductance <sup>4</sup><br>max (μH) | Input voltage range (V) | Turns ratio <sup>5</sup>  | Isolation <sup>6</sup> | Output <sup>7</sup> |
|--------------------------|-------------------------------------|--|---|-------------------------|---|------------------------|---------------------|
| B0863-BL_                | 165                                 | 0.061 (pri)<br>1.00 (reset)<br>1.29 (bias)<br>0.020 (drive)<br>0.008 (sec) | 0.75  | 28 – 60                 | pri : sec 1 : 0.29<br>pri : reset 1 : 1<br>pri : drive 1 : 0.24<br>pri : bias 1 : 1.3 | 1500 Vrms              | 3.3 V, 4 A          |

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

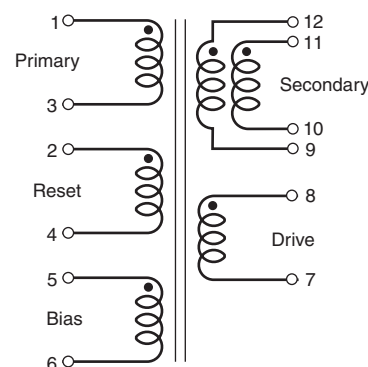
**B0863-BL D**

**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.

- Inductance is for the primary, measured at 10 kHz, 0.1 Vrms, 0 Adc.
- DCR for the secondary is measured with the windings connected in parallel.
- Leakage inductance is for the primary and is measured with all other windings shorted.
- Turns ratio is with the secondary windings connected in parallel.
- Isolation is measured from the primary, reset and bias windings to the secondary and drive windings.
- Output is with the secondary windings connected in parallel.
- Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



Secondary windings to be connected in parallel on PC board.

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Specifications subject to change without notice.  
Please check our website for latest information.

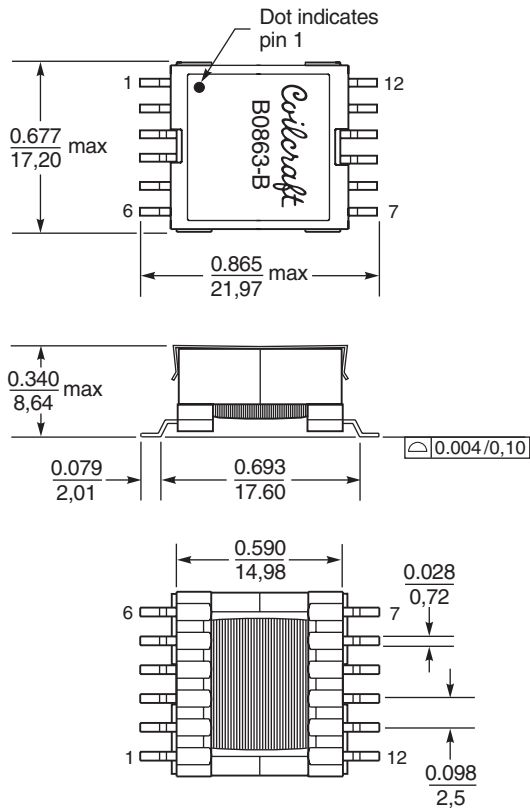
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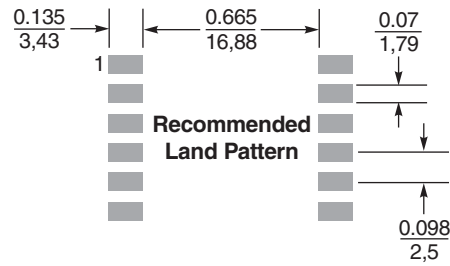
E-mail [info@coilcraft.com](mailto:info@coilcraft.com) Web <http://www.coilcraft.com>



# PoE Transformer for Maxim MAX5941B



Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



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