



# Flyback Transformer

For Maxim MAX5941A  
PoE Interface/PWM Controller



- Designed for IEEE 802.3af-compliant PoE applications
- Operates with 32–56 Volts input
- 1500 Vrms, one minute isolation between the primary and the secondary

**Core material** Ferrite

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

**Weight** 5.7 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 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, 0.37 mm thick, 28 mm pocket spacing, 9.0 mm pocket depth

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf.

Part number <sup>1</sup>	Inductance at 0A <sup>2</sup> ±5% (μH)	Inductance at I <sub>pk</sub> <sup>3</sup> min (μH)	DCR max (Ohms) <sup>4</sup>			Leakage inductance <sup>5</sup> max (μH)	Turns ratio <sup>6</sup>		I <sub>pk</sub> <sup>3</sup> (A)	Output <sup>7</sup>
			pri	sec	bias		pri:sec	pri:bias		
C1099-AL_	133.0	126.0	0.283	0.013	0.480	3.5	1:0.13	1:0.57	0.9	3.3V, 2.5A

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

**C1099-ALD**

**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 300 kHz, 1.0 Vrms.

3. Peak primary current drawn at minimum input voltage.

4. Primary DCR is measured with the windings connected in series. Secondary DCR is measured with the windings connected in parallel.

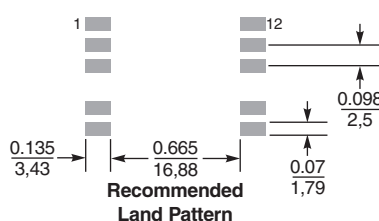
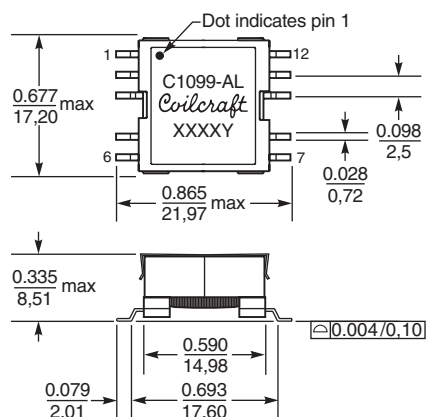
5. Leakage inductance is for the primary winding with the secondary winding shorted.

6. Turns ratio is for the primary connected in series and the secondary connected in parallel.

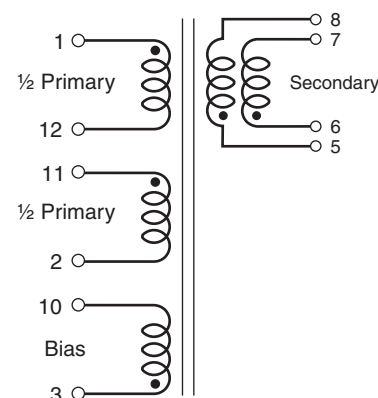
7. Output of the secondary is with the windings connected in parallel. Bias winding output is 14 V.

8. Electrical specifications at 25°C.

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



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



Primary windings to be connected in series and secondary windings to be connected in parallel on the PC board.



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com  
 UK +44-1236-730595 sales@coilcraft-europe.com  
 Taiwan +886-2-2264 3646 sales@coilcraft.com.tw  
 China +86-21-6218 8074 sales@coilcraft.com.cn  
 Singapore +65-6484 8412 sales@coilcraft.com.sg

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