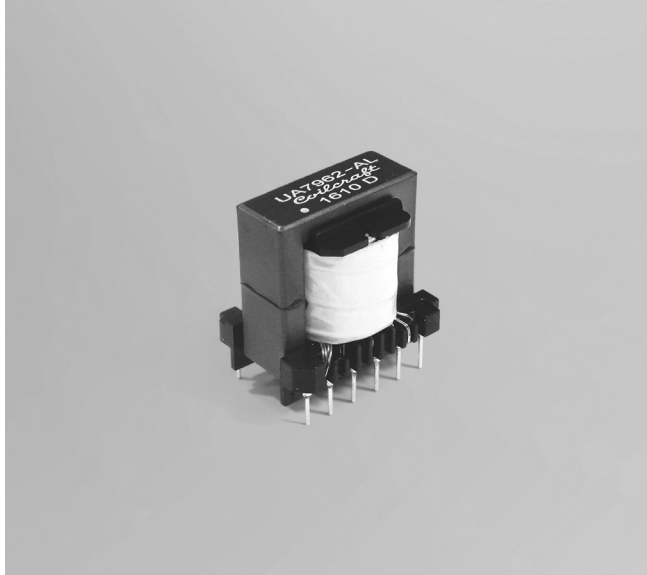


# 81W PoE Transformer

For TI Industrial POE Isolated Flyback Reference Design



- Developed for Texas Instruments 81W Industrial POE Isolated Flyback reference design, PMP20058
- Operates with input voltage of 8 – 18 V
- 54 V, 1.5 A isolated output
- 1500 Vrms, one minute isolation (hipot) from primary and aux to secondary.

**Core material** Ferrite

**Terminations** ROHS tin-silver over tin over copper plated steel

**Weight** 49.7 g

**Ambient temperature** –40°C to +105°C

**Maximum part temperature** +145°C

**Storage temperature** Component: –40°C to +105°C.

Tray packaging: –40°C to +80°C

**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** 120 per tray

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number	Inductance at 0A <sup>1</sup> ±5% (µH)	DCR max (mOhms) <sup>2</sup>			Leakage inductance <sup>3</sup> max (µH)	Turns ratios <sup>4</sup>		I <sub>pk</sub> <sup>5</sup> (A)	Output <sup>6</sup>	Isolation <sup>7</sup> (Vrms)
		pri	sec	aux		pri:sec	pri:aux			
UA7962-AL	10	5	38	51	0.085	1:2	1:0.5	15.5	54 V, 1.5 A	1500

1. Inductance is for the primary, measured at 300 kHz, 0.3 Vrms.
2. DCR for the primary is with the two windings connected in series (pin 2 and 3 to be connected).
3. Leakage inductance is for the primary windings with the secondary windings shorted.
4. Turns ratios are with the primary windings connected in series (pin 2 and 3 to be connected).

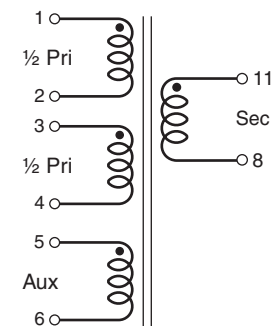
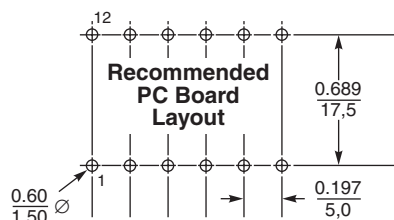
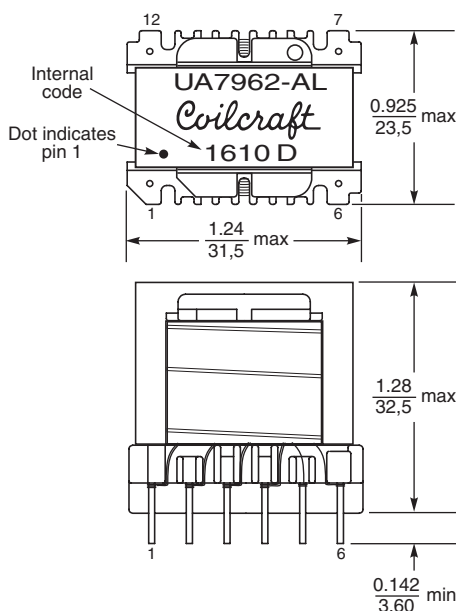
5. Peak primary current drawn at minimum input voltage.

6. Aux winding output is 20 mA.

7. Isolation (hipot) is measured from primary to secondary for one minute.

8. Electrical specifications at 25°C.

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



Pins 2 and 3 to be connected on the PC board

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



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