



# Flyback Transformer

For Texas Instruments TPS23750  
PoE Powered Device Controller



- Isolated non-synchronous flyback transformers developed for Texas Instruments PMP717 reference design.
- Designed for discontinuous conduction mode, 34 – 57 V input
- 1500 Vrms isolation primary to secondary windings

**Core material** Ferrite

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

**Weight** 1.4 g

**Ambient temperature** –40°C to +125°C

**Storage temperature** Component: –40°C to +125°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** 500 per 13" reel Plastic tape: 24 mm wide, 0.36 mm thick, 16 mm pocket spacing, 6.13 mm pocket depth

**PCB washing** Only pure water or alcohol recommended

Part number <sup>1</sup>	Inductance at 0 Adc <sup>2</sup> ±10% (µH)	Inductance at Ipk <sup>3</sup> min (µH)	DCR max (Ohms)	Leakage Inductance <sup>4</sup> max (µH)	Turns ratio		Ipk <sup>3</sup> (A)	Output <sup>6</sup>
					pri : sec <sup>5</sup>	pri : bias		
C1453-AL_	50	40	0.185 (pins 3 – 1) 0.030 (pins 6 – 10) 0.030 (pins 7 – 9) 0.385 (pins 4 – 5)	1.10	1 : 0.166	1 : 0.5	1.22	3.3 V, 1.5A

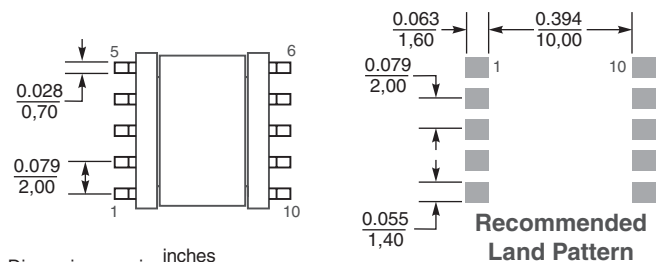
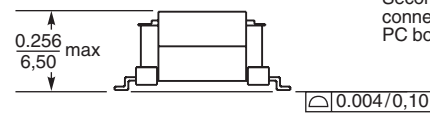
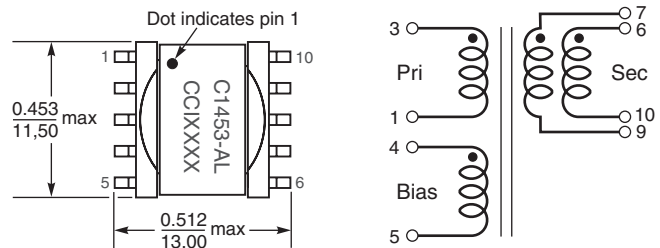
1. When ordering, please specify **packaging** code:

**C1453-ALD**

**Packaging: D** = 13" machine ready reel. EIA-481 embossed plastic tape (500 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 250 kHz, 0.3 Vrms.
  - Peak primary current drawn at minimum input voltage.
  - Leakage inductance is for the primary winding with the secondary windings shorted.
  - Turns ratio is with the secondary windings connected in parallel.
  - Output of the secondary is with the windings connected in parallel. Bias winding output is 10 V.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



Dimensions are in inches/mm



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

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