



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 (96.5/3.5) over tin over nickel over phos 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.

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 500 per 13" reel. Plastic tape: 24 mm wide, 0.36 mm thick, 16 mm pocket spacing, 6.13 mm pocket depth

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

Part number ¹	Inductance at 0 Adc ² ±10% (µH)	Inductance at Ipk ³ min (µH)	DCR max (Ohms)	Leakage Inductance ⁴ max (µH)	Turns ratio		Ipk ³ (A)	Output ⁶
					pri : sec ⁵	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:

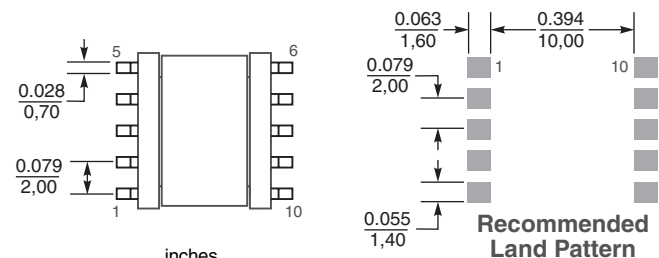
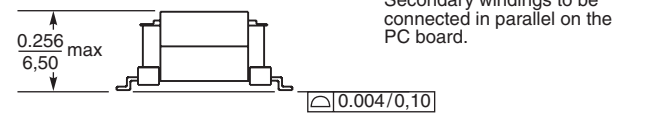
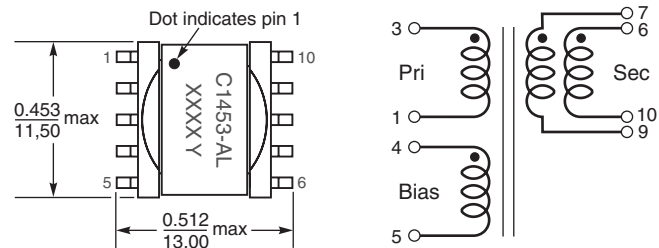
C1453-ALD

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



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