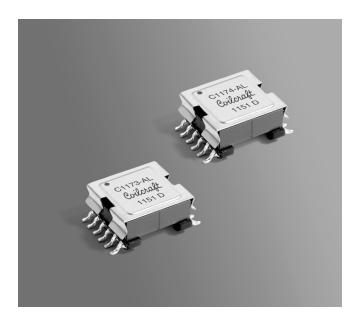


# Flyback Transformers For Texas Instruments TPS23750 PoE Powered Device Controller



- Isolated synchronous flyback transformers developed for Texas Instruments PMP929 reference design.
- Operates up to 500 kHz with 18 72 V input
- 1500 Vrms, one minute isolation primary and bias to secondary

### 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** 5.0 - 5.3 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, 0.35 mm thick, 28 mm pocket spacing, 9.6 mm pocket depth

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

Part	L at 0 A <sup>2</sup> ±10%	LatIpk <sup>3</sup>	DCR max (Ohms)				Leakage L <sup>5</sup> max (µH)		Turns ratio			Ipk <sup>3</sup>		Drive
number <sup>1</sup>	(µH)	(µH)	pri	sec <sup>4</sup>	drive	bias	pri	drive	pri:sec6	pri:drive	pri:bias	(A)	Output <sup>7</sup>	output
C1173-AL_	166.5	150.0	0.770	0.020	0.523	1.12	2.50	0.400	6.5:1	3.7:1	2.0:1	1.2	3.3 V, 3 A	5.6 V, 10 mA
C1174-AL_	150.0	135.0	0.515	0.023	0.570	0.88	2.00	0.400	5.0:1	3.2:1	2.25:1	1.2	5.0 V, 2 A	7.5 V, 10 mA
GA3562-BI	_ 166.5	150.0	0.740	0.100	0.456	1.15	2.05	0.245	2.0:1	4.0:1	2.0:1	1.2	12 V, 0.83 A	6.0 V, 10 mA

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

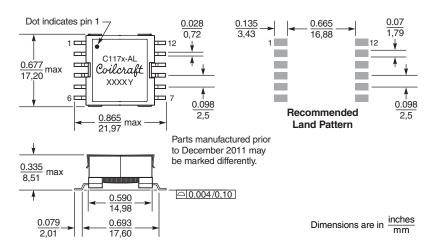
# C1174-ALD

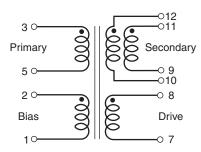
**Packaging: D** = 13" machine ready reel. EIA-481 embossed plastic tape (200 per full reel).

- **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 100 kHz, 0.1 Vrms.
- 3. Peak primary current drawn at minimum input voltage.

- 4. DCR for secondary is with windings connected in parallel.
- 5. Leakage inductance for the primary is with the secondary and drive windings shorted; leakage inductance for the drive winding is with the secondary windings shorted.
- 6. Turns ratio is with both secondary windings connected in parallel.
- Output of the secondary is with the windings connected in parallel. Bias winding output is 10 V, 20 mA.
- 8. Electrical specifications at 25°C.

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





The secondary windings are to be connected in parallel on the PC board.



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