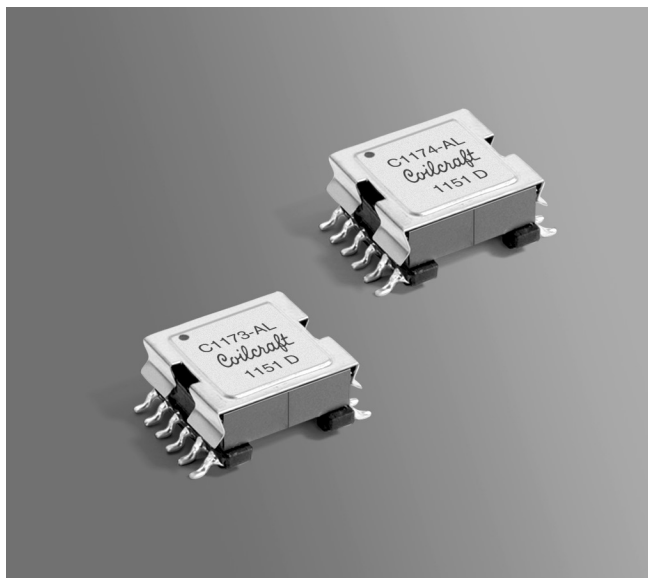




# Flyback Transformers

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

Part number <sup>1</sup>	L at 0A <sup>2</sup> ±10% (µH)	Lat Ipk <sup>3</sup> min (µH)	DCR max (Ohms)				Leakage L <sup>5</sup> max (µH)		Turns ratio			Ipk <sup>3</sup> (A)	Output <sup>7</sup>	Drive output
			pri	sec <sup>4</sup>	drive	bias	pri	drive	pri:sec <sup>6</sup>	pri:drive	pri:bias			
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-BL_	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). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

**B** = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

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.

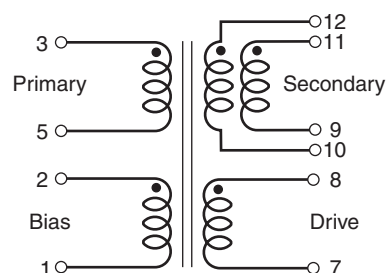
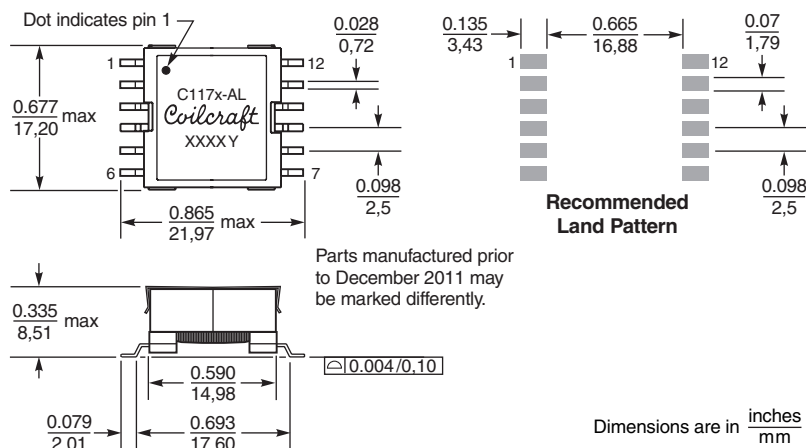
5. Leakage inductance for the primary is with the secondary and drive windings shorted; leakage inductance for the drive winding is with the secondary windings shorted.

6. Turns ratio is with both secondary windings connected in parallel.

7. 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.



[www.coilcraft.com](http://www.coilcraft.com)

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

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