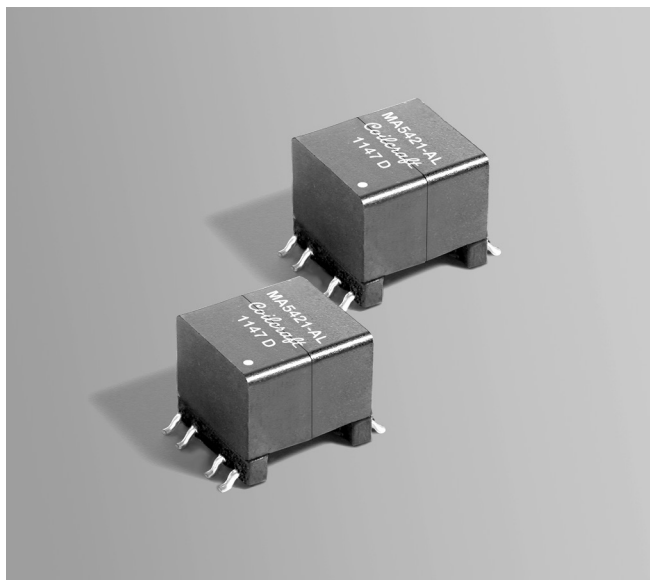




# Flyback Transformer

For Linear Technology  
LTC3300-1 Cell Balancer



- Flyback transformer developed for Linear Technology LTC3300-1 Bidirectional Cell Balancer
- 1500 Vrms primary to secondary isolation; 500 Vrms isolation between windings of the primary and the 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** 6.0 g

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  with Irms current

**Maximum part temperature**  $+125^{\circ}\text{C}$  (ambient + temp rise)

**Storage temperature** Component:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .

Tape and reel packaging:  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

**Resistance to soldering heat** Max three 40 second reflows at  $+260^{\circ}\text{C}$ , parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}\text{C}$  / 85% relative humidity)

**Packaging** 175 per 13" reel Plastic tape: 32 mm wide, 0.6 mm thick, 28 mm pocket spacing, 12.93 mm pocket depth

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

Part number <sup>1</sup>	Inductance at 0 A <sup>2</sup> $\pm 15\%$ ( $\mu\text{H}$ )	Inductance at Ipk <sup>3</sup> min ( $\mu\text{H}$ )	DCR max (Ohms) <sup>4</sup>		Leakage inductance max ( $\mu\text{H}$ ) <sup>5</sup>	Turns ratio <sup>6</sup> pri : sec	Ipk <sup>3</sup> (A)	Irms <sup>7</sup> (A)
			pri	sec				
MA5421-AL_	3.4	2.8	0.009	0.011	0.15	1 : 1	10	3.3

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

**MA5421-ALD**

**Packaging:** D = 13" machine-ready reel. EIA-481 embossed plastic tape (175 parts 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, 0 Adc.

3. Ipk is peak primary current drawn at minimum input voltage.

4. DCR is for the windings connected in parallel.

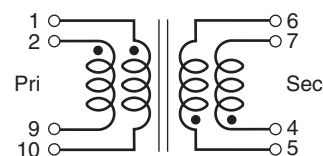
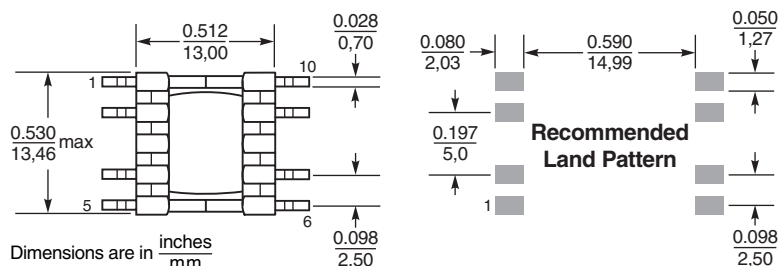
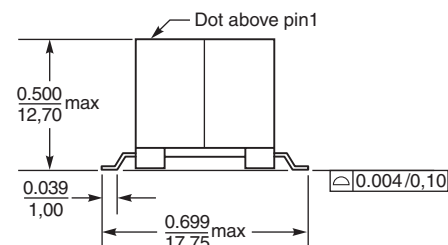
5. Leakage inductance is for the primary windings connected in parallel and is measured with the secondary windings shorted.

6. Turns ratio is with the primary windings and the secondary windings connected in parallel.

7. Current that causes a  $40^{\circ}\text{C}$  rise from  $25^{\circ}\text{C}$  ambient, tested with continuous current flowing through all windings. This information is for reference only and does not represent absolute maximum ratings.

8. Electrical specifications at  $25^{\circ}\text{C}$ .

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



Primary windings and secondary windings to be connected in parallel on the PCB board



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