

# Planar Magnetics For Texas Instruments UCC3580



This planar transformer and planar inductor pair is designed specifically for the Texas Instruments UCC3580 family of PWM controllers.

The B0392-AL transformer is engineered for use in single switch, forward topologies operating at 300 kHz. It is ideal for use in high-current telecom power supply applications that require high efficiency in a low-profile package.

The main winding of the B0434-AL inductor serves as an output choke, while the auxiliary winding controls input current to the PWM.

Request free evaluation samples by contacting Coilcraft or visiting **www.coilcraft.com**.

# Transformer

Part number <sup>1</sup>	Output power (W)	Output voltage (V)	Output current (A rms)	Primary inductance <sup>2</sup> min (μΗ)	Leakage inductance <sup>3</sup> max (µH)	DCR max (mOhms)	Pri/sec isolation (Vdc)
B0392-AL_	100	3.3	30.0	65.0	0.22	Primary: 13.5 Secondary: 0.4	1500

1. When ordering, please specify packaging code:

B0392-ALD

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

0.006/0,15

- 2. Inductance measured on an Agilent/HP 4284 between pins 1 and 2 at 250 kHz, 0.1 Vrms, 0 Adc.
- 3. Leakage inductance measured between pins 1 and 2 at 100 kHz, 0.1 Vrms, 0 Adc with secondary pins shorted.

4. Electrical specifications at 25°C.

inches

mm

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







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 $\frac{0.340}{8.64}$  max

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Dimensions are in

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# **Planar Magnetics for Texas Instruments UCC3580**

# **Output Inductor**

Part number <sup>1</sup>	Inductance <sup>2</sup> @ 0 Adc (uH)	I rated Adc	DCR max (mOhms)	Isolation <sup>3</sup> (Vdc)	Isat <sup>4</sup> (A)	Irms <sup>5</sup> (A)
B0434-AL_	2.0 ±10%	30	Main: 1.9	1100	38	36
			Aux: 1450.0			

1. When ordering, please specify packaging code:

#### B0434-ALD

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  - 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.





# Typical L vs Current

10 kHz, 0.1 Vrms.

current.

3. Isolation measured from pin 1 to pin 3.

6. Electrical specifications at 25°C.

5. Current that causes a 40°C rise from 25°C ambient.



2. Inductance measured on an Agilent/HP 4284 between pins 3 and 4 at

4. DC current at which inductance drops 10% (typ) from its value without

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

### Core material Ferrite

Terminations RoHS Tin silver over nickel over brass

### Weight 11.1 - 11.5 g

Ambient temperature -40°C to +85°C Storage temperature Component: -40°C to +85°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) Packaging 200 per 13" reel Plastic tape: 44 mm wide, 0.37 mm thick, 32 mm pocket spacing, 9.4 mm pocket depth

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

# www.coilcraft.com

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## **Typical L vs Frequency**