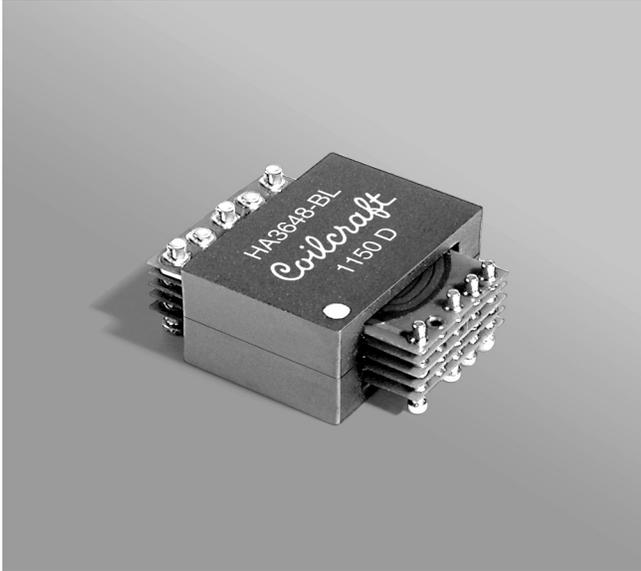




# Planar Transformer

For National Semiconductor  
LM5037 PWM Controller



- Developed for NSC LM5037 Dual-Mode PWM Controller
- Designed as half bridge in forward topology
- Auxiliary winding provides 10 V to the chipset
- Input voltage range: 36 – 78 V

**Core material** Ferrite

**Terminations** RoHS matte tin over nickel over brass. Other terminations available at additional cost.

**Weight** 11.8 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, 9.35 mm pocket depth

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

Part number <sup>1</sup>	Output power (W)	Output voltage nom (V)	Output current (A <sub>dc</sub> )	Primary inductance <sup>2</sup> min (µH)	Leakage inductance <sup>3</sup> max (µH)	DCR max <sup>4</sup> (mOhms)	Turns ratio pri : sec1 : sec2 : aux	Pri/sec Isolation (V <sub>dc</sub> )
HA3648-BL_	50	5	10	30.0	0.040	pri: 6.0 sec: 4.0 aux: 160	2 : 1 : 1 : 2	1500

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

**HA3648-BLD**

**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).

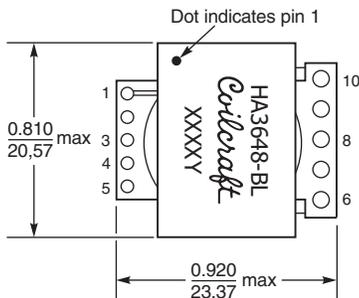
B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to D.

2. Inductance measured on an Agilent/HP 4284 between pins 3 and 4 at 250 kHz, 0.1 Vrms, 0 A<sub>dc</sub>.

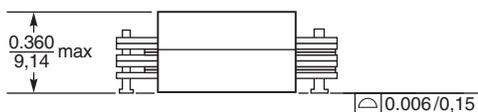
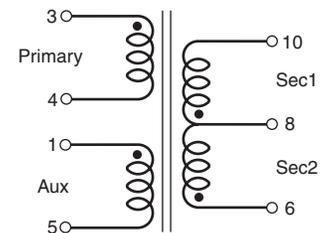
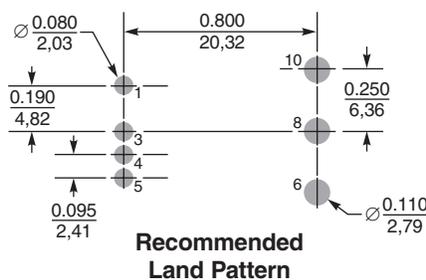
3. Leakage inductance measured between pins 3 and 4 at 250 kHz, 0.1 Vrms, 0 A<sub>dc</sub> with pins 6, 8 and 10 shorted.

4. DCR for the secondary is from pin 6 to pin 10.

5. Electrical specifications at 25°C.



Parts manufactured prior to December 2011 may be marked differently.



Dimensions are in inches/mm



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