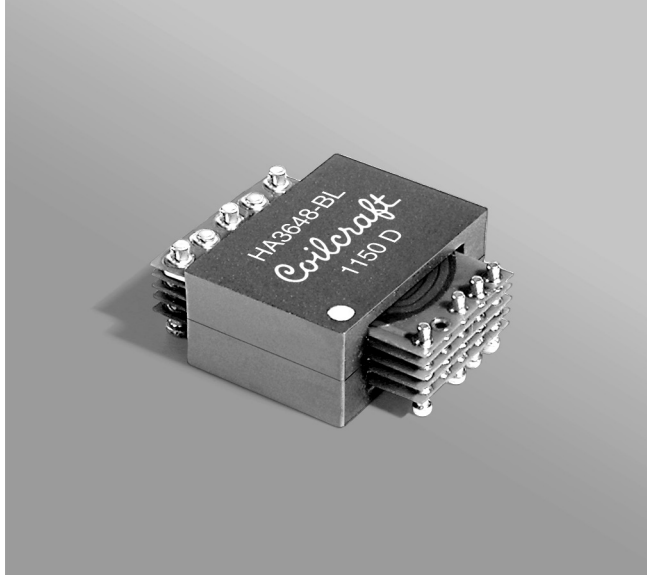




# Planar Transformer

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)

**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, 0.37 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 (Vdc)
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).

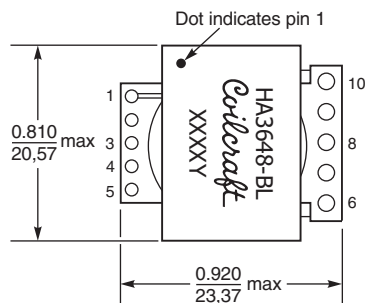
B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.

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

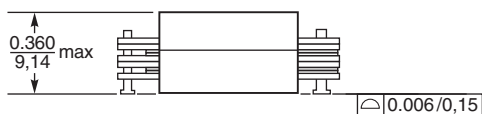
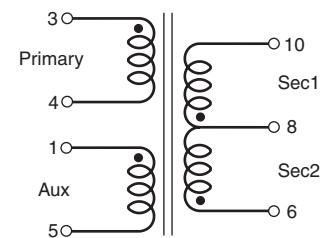
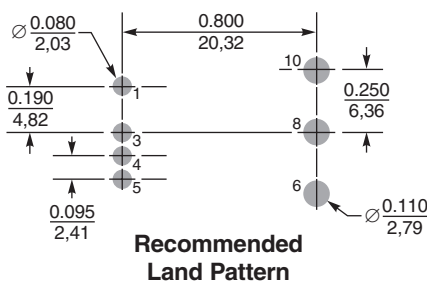
3. Leakage inductance measured between pins 3 and 4 at 250 kHz, 0.1 Vrms, 0 A<sub>dc</sub> with pins 6, 8 and 10 shorted.

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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