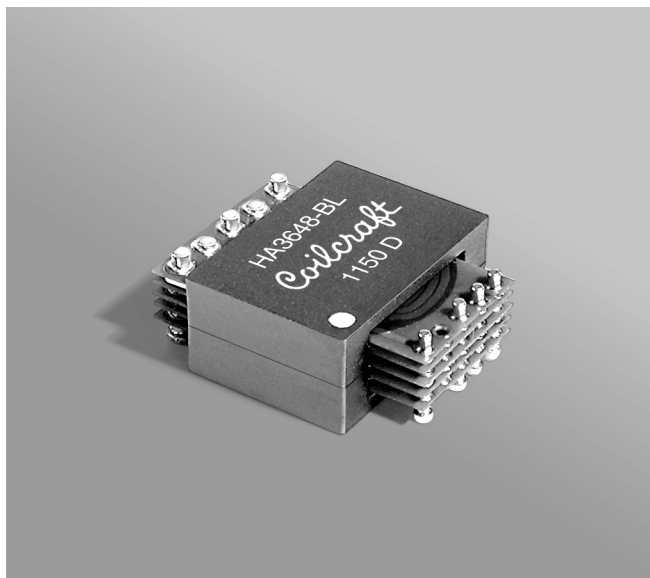




Planar Transformer

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 ¹	Output power (W)	Output voltage nom (V)	Output current (Adc)	Primary inductance ² min (μH)	Leakage inductance ³ max (μH)	DCR max ⁴ (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).

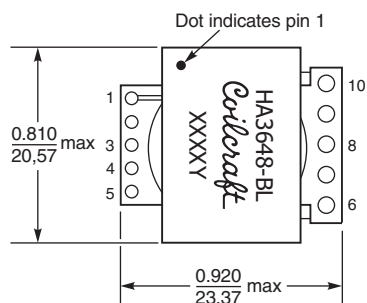
B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added (\$25 charge), use code letter D instead.

2. Inductance measured on an Agilent/HP 4284 between pins 3 and 4 at 250 kHz, 0.1 Vrms, 0 Adc.

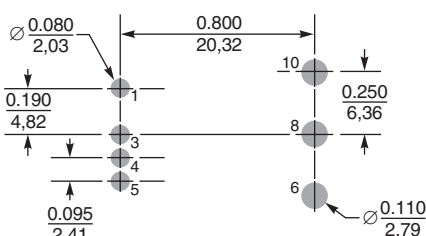
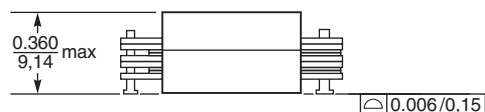
3. Leakage inductance measured between pins 3 and 4 at 250 kHz, 0.1 Vrms, 0 Adc with pins 6, 8 and 10 shorted.

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

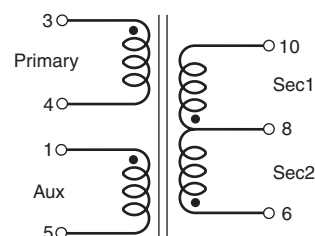
5. Electrical specifications at 25°C.



Parts manufactured prior to December 2011 may be marked differently.



Recommended Land Pattern



Dimensions are in $\frac{\text{inches}}{\text{mm}}$



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