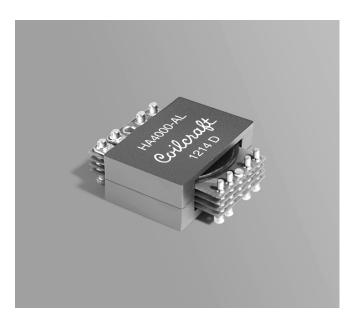


Planar Transformer For National Semiconductor LM5027 Active Clamp Controller



- Developed for the National Semiconductor LM5027 Voltage Mode Active Clamp Controller.
- Chosen by NSC for T1 on the LM5027 Evaluation Board, and is described in Application Note AN-1976.
- 1500 Vdc isolation, primary and auxiliary to secondaries
- Auxiliary winding provides 10 V to power the chipset.

Core material Ferrite

Terminations RoHS matte tin over nickel over brass.

Weight 11.9 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 200/13" 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	Inductance ²	DCR max (mOhms) ³			Leakage inductance ⁴	Input voltage	Turns	
number ¹	min (µH)	pri	sec	aux	max (µH)	range (V)	pri : sec1 : sec2 : aux	Output ⁵
HA4000-AL_	270	56	0.5	294	0.6	36 – 78	12:1:1:7	3.3 V, 30 A

1. When ordering, please specify a packaging code:

HA4000-ALD

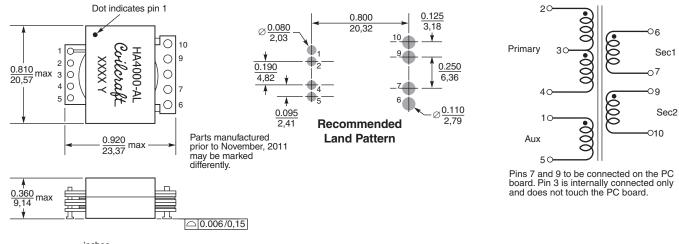
Packaging: D = 13" machine ready reel. EIA-481 embossed plastic tape (200 parts per full reel).

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 is for the primary, measured across pins 2 and 4 at 200 kHz, 0.1 Vrms, 0 Adc.
- 3. DCR for the primary is measured from pin 2 to pin 4. DCR for the secondary is for each winding.
- 4. Leakage inductance is for the full primary and is measured with the secondary shorted.
- 5. Output is with the secondary windings connected in series. Bias winding output is 10 V, 65 mA.

6. Electrical specifications at 25°C.

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



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



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Document 830 Revised 05/29/12

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