

# Flyback Transformer

For National Semiconductor  
LM5000 DC/DC Regulator

This surface mount flyback transformer is designed for use with National Semiconductor LM5000 DC/DC regulator. The core completely encloses the windings to minimize EMI interference. The transformer features very low DCR, 500 Vrms isolation and a leakage inductance rating of just

1.0  $\mu$ H. Coilcraft can also custom engineer a transformer to meet your specific requirements.

For free evaluation samples, contact Coilcraft or order them on-line at [www.coilcraft.com](http://www.coilcraft.com).

Part number <sup>1</sup>	Inductance <sup>2</sup> $\pm 20\%$ ( $\mu$ H)		Input voltage (V)	Output	DCR max (Ohms)	Leakage Inductance <sup>3</sup> max ( $\mu$ H)	Turns ratio in:out:aux	Isolation <sup>4</sup> (Vrms)
	Pins 1 – 4	Pins 2 – 3						
A0009-AL_	100	100	18 – 55	3.3 V @ 3 A	0.150 (1 – 4) 0.150 (2 – 3) 0.012 (5,6 – 7,8)	1.0	1 : 0.33 : 1	500

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

**A0009-ALD**

**Packaging:** D = 13" machine ready reel. EIA-481 embossed plastic tape (150 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.

- Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc.
  - Leakage inductance measured at 100 kHz, 0.1 Vrms from pins 1 to 4 with all other pins shorted.
  - Isolation measured from pin 1 to pins 5 and 6; from 2 to 5 and 6; and from pins 1, 2, 5 and 6 to the core for one minute.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

**Core material** Ferrite

**Terminations** RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.

**Weight** 7.86 g

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$

**Storage temperature** Component:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .  
Tape and reel packaging:  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

**Resistance to soldering heat** Max three 40 second reflows at  $+260^{\circ}\text{C}$ , parts cooled to room temperature between cycles

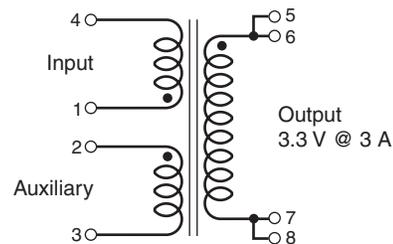
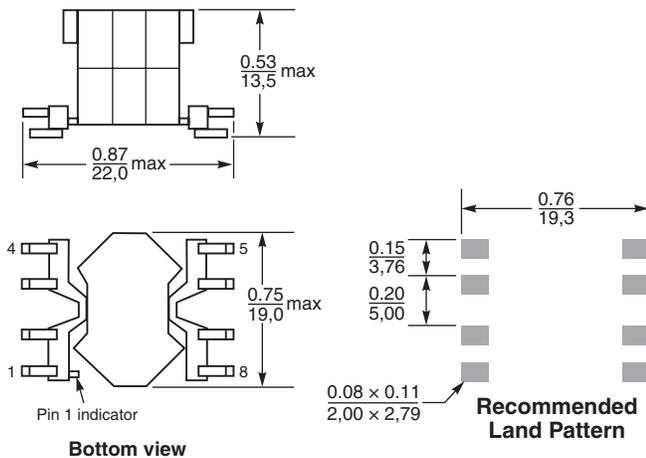
**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}\text{C}$  / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging** 150 per 13" reel Plastic tape: 44 mm wide, 0.5 mm thick, 28 mm pocket spacing, 13.8 mm pocket depth

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



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



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