

# Flyback Transformer

For Silicon Labs Si88xxx 5kV  
Isolated DC-DC Converter



- Developed for use with Silicon Labs Si88xxx isolated dc-dc-converter reference designs.
- 5000 Vrms, one minute isolation from primary to secondary
- Designed to meet reinforced insulation class with 8 mm creepage and clearance.
- AEC-200 Grade 1 (−40°C to +125°C)

**Core material** Ferrite

**Terminations** RoHS tin-silver-copper (95.5/3.8/0.7) over tin over nickel over phos bronze.

**Weight** 1.1 g

**Ambient temperature** −40°C to +125°C

**Maximum part temperature** +160°C

**Storage temperature** Component: −40°C to +160°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** 700 per 13" reel Plastic tape: 32 mm wide, 0.40 mm thick, 16 mm pocket spacing, 5.72 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	Input voltage (V)	Inductance <sup>2</sup> ±5% (µH)	Leakage inductance <sup>3</sup> max (µH)	DCR max <sup>4</sup> (Ohms)		Turns ratio pri:sec	Isolation <sup>5</sup> (Vrms)	Isat <sup>6</sup> (A)	Output
				pri	sec				
UA7902-AL_	7 – 24	25.0	0.971	0.075	0.106	3 : 1	5000	1.3	5 V, 0.4 A

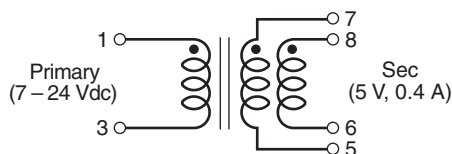
1. When ordering, specify a **packaging** code:

**UA7902-ALD**

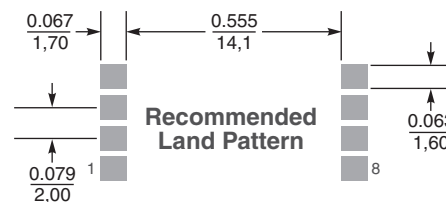
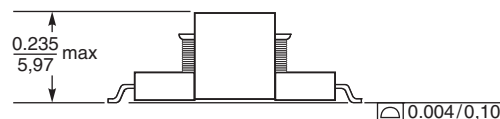
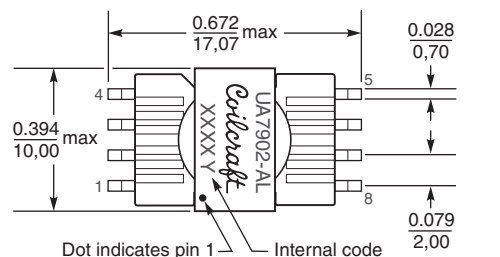
**Packaging:** **D** = 13" machine ready reel. EIA-481 embossed plastic tape. Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

**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.

- Inductance is for the primary, measured on an Agilent/HP 4284 at 250 kHz, 0.1 Vrms, 0 Adc.
  - Leakage inductance measured between pins 1 and 3 at 250 kHz, 0.1 Vrms, 0 Adc with all secondary pins shorted.
  - DCR for secondary is for the windings connected in parallel.
  - Isolation (hipot) measured between windings for one minute.
  - DC current that causes an inductance drop of 30% (typ) from its value without current
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



Secondary windings to be connected in parallel on PC board.



Dimensions are in inches/mm



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