

## Flyback Transformer

## For Silicon Labs Si88xx 5kV Isolated DC-DC Converter



- Developed for use with Silicon Labs Si88xx isolated dc-dcconverter 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 +135°C

Storage temperature Component:  $-40^{\circ}$ C to  $+135^{\circ}$ C. Tape and reel packaging:  $-40^{\circ}$ C to  $+80^{\circ}$ 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)

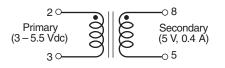
Packaging 700 per 13" reel Plastic tape: 32 mm wide, 0.40 mm thick, 16 mm pocket spacing, 5.72 mm pocket depth PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787\_PCB\_Washing.pdf.

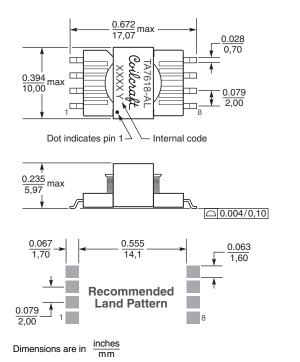
| Part                | Input       | Inductance <sup>2</sup> | Leakage<br>inductance <sup>3</sup> | DCR max<br>(Ohms) |       | Turns ratio | Isolation <sup>4</sup> | Isat⁵ |            |
|---------------------|-------------|-------------------------|------------------------------------|-------------------|-------|-------------|------------------------|-------|------------|
| number <sup>1</sup> | voltage (V) | ±5% (μΗ)                | max (µH)                           | pri               | sec   | pri:sec     | (Vrms)                 | (A)   | Output     |
| TA7618-AL_          | 3.0 - 5.5   | 2.0                     | 0.064                              | 0.031             | 0.185 | 1:4         | 5000                   | 4.8   | 5 V, 0.4 A |

1. When ordering, specify a packaging code:

## TA7618-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.
- 2. Inductance is for the primary, measured on an Agilent/HP 4284 at 100 kHz, 0.1 Vrms, 0 Adc.
- 3. Leakage inductance measured between pins 2 and 3 at 100 kHz, 0.1 Vrms, 0 Adc with pins 8 and 5 shorted.
- 4. Isolation (hipot) measured between windings for one minute.
- 5. DC current that causes an inductance drop of 30% (typ) from its value without current
- 6. Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.







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