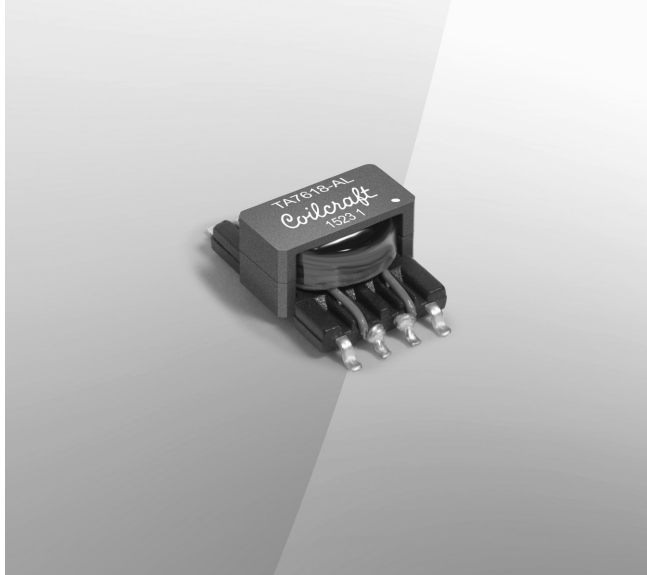


**NEW!**

# Flyback Transformer

For Silicon Labs ISOVolt  
Isolated DC-DC Converter



- Developed for use with Silicon Labs ISOVolt isolated dc-dc-converter reference design
- Ultra-miniature flyback transformer
- AEC-200 Grade 1 qualified (–40°C to +125°C ambient)
- Designed to meet reinforced insulation class with 8 mm creepage and clearance.

**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** +125°C (ambient + temp rise)

**Storage temperature** Component: –40°C to +125°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** 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><br>±5% (µH) | Leakage inductance <sup>3</sup><br>max (µH) | DCR max (Ohms) |       | Turns ratio<br>pri:sec | Isolation <sup>4</sup><br>(Vrms) | Isat <sup>5</sup><br>(A) | Output     |
|--------------------------|-------------------|-------------------------------------|---|----------------|-------|------------------------|----------------------------------|--------------------------|------------|
|                          |                   |                                     |   | pri            | sec   |                        |                                  |                          |            |
| 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:

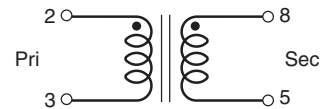
**TA7618-ALD**

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

**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.

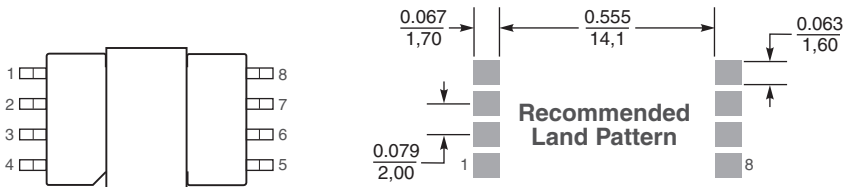
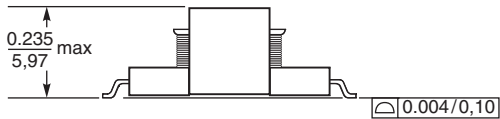
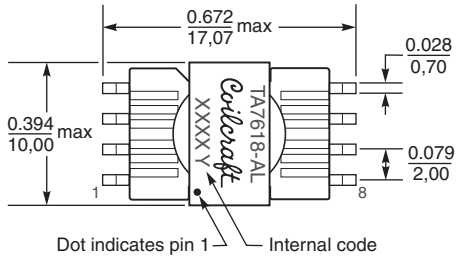
- Inductance is for the primary, measured on an Agilent/HP 4284 at 100 kHz, 0.1 Vrms, 0 Adc.
- Leakage inductance measured between pins 2 and 3 at 100 kHz, 0.1 Vrms, 0 Adc with pins 8 and 5 shorted.
- Isolation (hipot) measured between windings for one minute.
- DC current that causes an inductance drop of 30% (typ) from its value without current
- Electrical specifications at 25°C.

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



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# Flyback Transformer for Silicon Labs ISOVolt dc-dc-converter



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