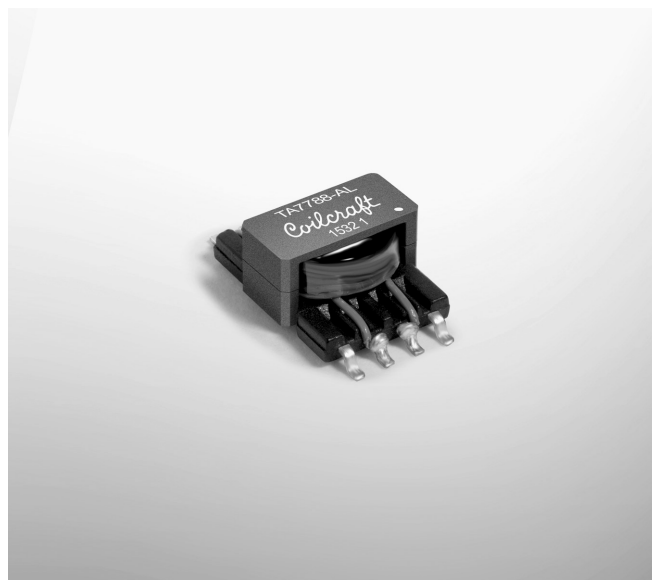


**NEW!**

# Flyback Transformer

For Silicon Labs Si828x 5kV  
Isolated DC-DC Converter



- Developed for use with Silicon Labs Si828x 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 qualified (–40°C to +125°C ambient)

**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)

**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:sec1:sec2 | Isat <sup>4</sup><br>(A) | Output <sup>5</sup> |
|--------------------------|-------------------|-------------------------------------|---|----------------|-------|-------|------------------------------|--------------------------|---------------------|
|                          |                   |                                     |   | pri            | sec1  | sec2  |                              |                          |                     |
| TA7788-AL_               | 7 – 24            | 25.0                                | 0.554                                       | 0.490          | 0.730 | 0.492 | 1 : 1.25 : 0.75              | 1.4                      | 15 V, 0.13 A        |

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

**TA7788-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.

2. Inductance is for the primary, measured on an Agilent/HP 4284 at 250 kHz, 0.1 Vrms, 0 Adc.

3. Leakage inductance measured between pins 2 and 3 at 250 kHz, 0.1 Vrms, 0 Adc with all secondary pins shorted.

4. DC current that causes an inductance drop of 30% (typ) from its value without current

5. Output of Sec1 is 15 V, 0.13 A. Output of Sec2 is 9 V, 0.02 A.

6. Electrical specifications at 25°C.

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

