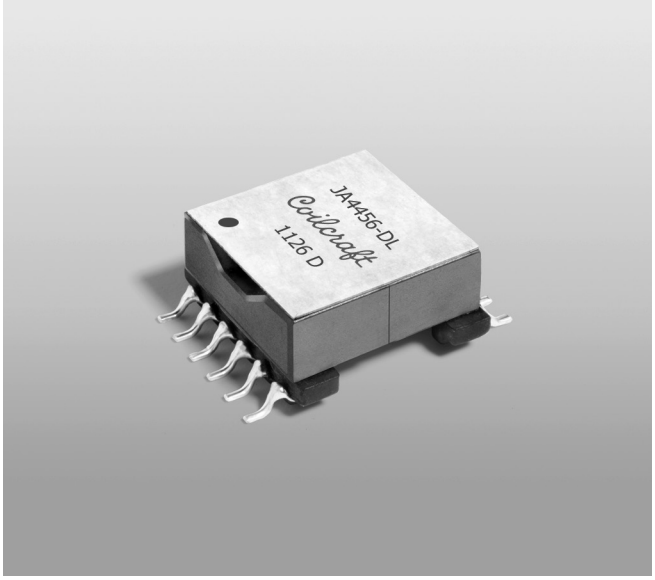
# Flyback Transformer

**For TI TPS23752 POE PD controller**




- Developed for Texas Instruments green mode TPS23752 POE PD controller
- 1500 Vrms, one minute isolation (hipot) primary and bias to secondary; 500 Vrms, one minute isolation primary to bias; 750 Vrms all pins to the core.

**Core material** Ferrite

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

**Weight** 11.7 g

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

**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** 175 per 13″ reel Plastic tape: 44 mm wide, 0.5 mm thick, 32 mm pocket spacing, 12.0 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

| Part number[1] | Inductance at 0 A[2] ±10% (µH) | DCR max (Ohms)[4] pri | sec | bias | Leakage inductance[5] max (µH) | Capacitance[6] max (pF) | Turns ratios[7] pri : sec | pri : bias | Ipk[3] (A) | Output[8] |
|---|---|---|---|---|---|---|---|---|---|---|
| JA4456-DL_ | 70 | 0.07 | 0.0043 | 0.310 | 0.615 | 158 | 1 : 0.182 | 1 : 0.409 | 3.3 | 5 V, 5 A |

1. When ordering, please specify **termination** and **packaging** codes:

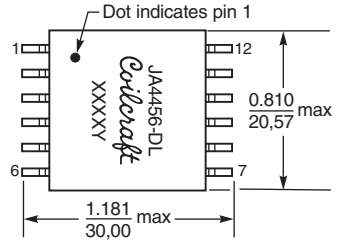
**JA4456-DLD**

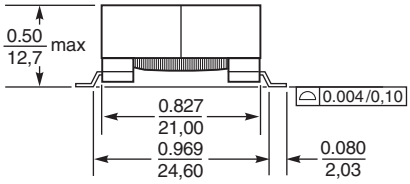
**Termination:** **L** = RoHS tin-silver over tin over nickel over phos bronze.
**Special order: T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).

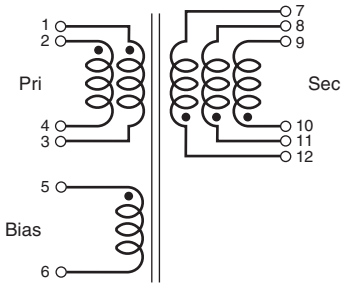
**Packaging:** **D** = 13″ machine-ready reel. EIA-481 embossed plastic tape (175 parts per full reel).
**B** = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter D instead.

2. Inductance is for the primary, measured at 250 kHz, 0.5 Vrms.
3. Peak primary current drawn at minimum input voltage.
4. DCR for the primary and secondary are with the windings connected in parallel.
5. Leakage inductance is for the primary windings with all the secondary windings shorted.
6. Capacitance is for the primary, measured at 250 kHz, 0.5 Vrms with all secondary pins shorted.
7. Turns ratios are with the primary windings and secondary windings connected in parallel.
8. Output of the secondary is with all windings connected in parallel. Bias winding output is 12 V, 20 mA.
9. Electrical specifications at 25°C.

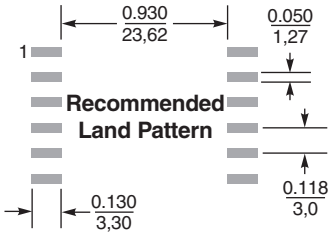
Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

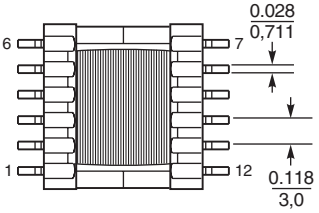



Primary windings and secondary windings to be connected in parallel on PC board.




Dimensions are in inches / mm

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