

Flyback Transformers

Protocolar Altor Contractor Contr

For Linear Technology LT3750/LT3751 Capacitor Charger Controllers

These surface mount flyback transformers were developed for use with Linear Technology LT3750 Capacitor Charger Controller. DA2033-AL and DA2034-AL are also specified for the LT3751 Controller. They have a smaller footprint than other transformers designed for this application.

These low-profile transformers feature 1500 Vrms, one minute winding to winding isolation and 750 Vrms winding to core isolation. They are designed to operate with an input range of 3 - 24 V and to charge a capacitor to 300 V.

They are shown on the Linear Technology LT3750 application note for use in a 300 V, 3 A charging circuit (DA2032); a 300 V, 6 A charging circuit (DA2033); and a 300 V, 9 A charging circuit (DA2034).

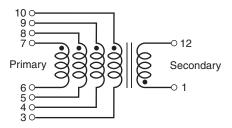
Coilcraft can also custom engineer a transformer to meet your specific requirements. For free evaluation samples, contact Coilcraft or visit **www.coilcraft.com**.

| Part | Inductance at 0 A ² | Inductance at Ipk ³ | DCR max (Ohms) | | Leakage inductance ⁵ | Ipk ³ | Interwinding capacitance ⁶ | Turns ratio |
|------------|-----------------------------------|-----------------------------------|------------------|------|------------------------------------|------------------|---------------------------------------|-------------|
| number1 | ±10% (μH) | min (µH) | pri ⁴ | sec | max (µH) | (A) | (pF) | pri : sec |
| DA2032-AL_ | 10.0 | 9.0 | 0.013 | 1.60 | 0.150 | 3.0 | 67 | 1:10 |
| DA2033-AL_ | 10.0 | 9.0 | 0.015 | 1.10 | 0.144 | 5.0 | 76 | 1:10 |
| DA2034-AL_ | 10.0 | 9.0 | 0.018 | 1.75 | 0.250 | 10.0 | 128 | 1:10 |

1. When ordering, please specify packaging code:

DA2034-ALD

- Packaging: D = 13" machine-ready reel. EIA-481 embossed plastic tape (DA2032-AL & DA2033-AL: 200 parts per full reel; DA2034-AL: 175 parts per full reel). 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 at 100 kHz, 0.1 Vrms, 0 Adc.
- 3. Peak primary current drawn at minimum input voltage.
- 4. DCR is with the primary windings connected in parallel.
- Leakage inductance is with the primary windings connected in parallel and with the secondary winding shorted.
- Capacitance measured at 100 KHz, 0.1 Vrms from pin 3 to pin 1 with all other pins shorted.
- 7. Electrical specifications at 25°C.



Primary windings to be connected in parallel on PC board



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Core material Ferrite

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

Weight DA2032: 5.9 g; DA2033: 8.2 g; DA2034: 14.1 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

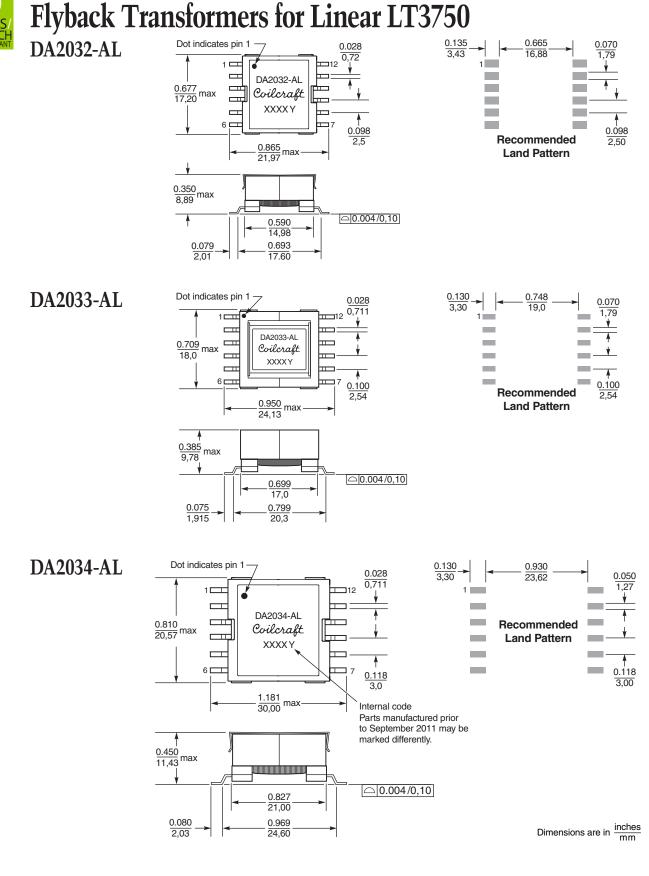
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at $<30^{\circ}C / 85\%$ relative humidity)

Packaging

DA2032-AL 200 per 13" reel. Plastic tape: 44 mm wide, 0.4 mm thick, 28 mm pocket spacing, 9.6 mm pocket depth
DA2033-AL 200 per 13" reel. Plastic tape: 44 mm wide, 0.4 mm thick, 24 mm pocket spacing, 10.56 mm pocket depth
DA2034-AL 175 per 13" reel. Plastic tape: 44 mm wide, 0.4 mm thick, 32 mm pocket spacing, 11.9 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.



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