

## **Isolation Transformers**

## For Texas Instruments RS-485 and Profibus Interfaces



- Developed to work with Texas Instruments ISO3086T and ISO35T RS-485 Interfaces and ISO1176T Profibus Interface.
- Mounted on the Texas Instruments SN6501xEVM Evaluation Modules used to analyze the SN6501 oscillator/power driver
- · Center tapped primary and secondary windings
- 2500 Vrms, one minute interwinding isolation.

## Core material Ferrite

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

Weight 0.94 - 1.0 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)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging** 600/13" reel Plastic tape: 24 mm wide, 0.37 mm thick, 16 mm pocket spacing, 6.1 mm pocket depth

PCB washing Only pure water or alcohol recommended

Part number <sup>1</sup>	Pri/sec voltage	Inductance <sup>2</sup> min (µH)	DCR ma	sec	Leakage inductance <sup>4</sup> max (µH)	Volt-time product <sup>5</sup> (V-µsec)	Power <sup>6</sup> (W)	Turns ratio pri : sec
DA2303-AL_	5 V to 5 V or 3.3 V to 3.3 V	45.6	0.130	0.260	1.0	34.4	7.2	1:1.5
DA2304-AL_	3.3 V to 5 V	17.8	0.086	0.232	0.43	21.5	7.2	1:2.2

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

## DA2303-ALD

**Termination:** L = RoHS compliant 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 (600 per full reel).

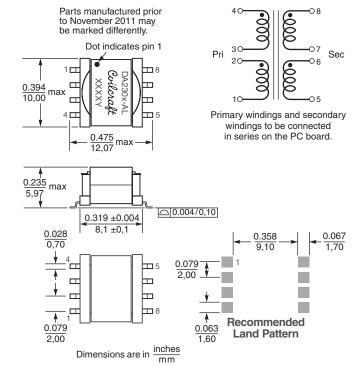
tape (600 per full reel).

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 tested between pins 4 and 3 at 500 kHz, 0.5 Vrms, 0 Adc.
- DCR is per winding.
- Leakage inductance is for the primary with both windings connected in series and with the secondary windings shorted.
- 5. Based on Bsat of the core at 25°C and number of turns on winding 4-3.
- Calculated output power based on 150 kHz operating frequency. Power varies depending on application.
- 7. Electrical specifications at 25°C.

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





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Document 550T Revised 11/29/11

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