



# SMT Power Transformers

For Analog Devices Isolated  
RS-485 Transceivers



- Developed for Analog Devices ADM2482E, ADM2485 and ADM2487E RS-485 Transceivers for stepping up 5 V or 3.3 V to 6 V.
- 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°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 max (Ohms) <sup>3</sup>		Leakage inductance <sup>4</sup> max (µH)	Volt-time product <sup>5</sup> (V-µsec)	Power <sup>6</sup> (W)	Turns ratio pri : sec
			pri	sec				
DA2303-AL_	5 V to 6 V	45.6	0.130	0.260	1.0	34.4	7.2	1 : 1.5
DA2304-AL_	3.3 V to 6 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).

**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 A dc.

3. DCR is per winding.

4. Leakage inductance is for the primary with both windings connected in series and with the secondary windings shorted.

5. Based on Bs at of the core at 25°C and number of turns on winding 4-3.

6. 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.

