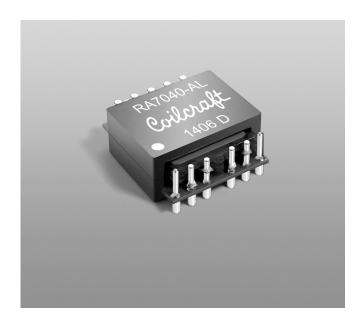


## SMT Planar Transformer For TI UCC 2897 12 V/150 W Active Clamp Forward



- Developed for Texas Instruments UCC2897 Active Clamp Forward (PMP9720 reference design)
- Designed for 48 60 Vdc input; 12 V, 13 A
- High efficiency; excellent DCR; very low leakage inductance; 1500 Vrms, one minute primary to secondary isolation.
- Provides 0.009" (0.229 mm) clearance above the seating plane

Core material Ferrite

Terminations Matte tin over nickel over brass.

Weight 12.7 g

Ambient temperature -40°C to +125°C

Maximum part temperature +165°C (ambient + temp rise)

Storage temperature Component: -40°C to +125°C.

Tray 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)

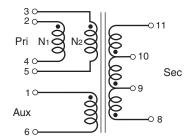
Failures in Time (FIT) / Mean Time Between Failures (MTBF) 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332 Packaging 36 per tray

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787\_PCB\_Washing.pdf.

Part	Turns				Primary inductance <sup>1</sup>	Leakage inductance <sup>2</sup>	DCR max (mOhms)			Volt-time product typ <sup>4</sup>	
number	N <sub>1</sub>	N <sub>2</sub>	Sec	Aux	±20 (µH)	max (µH)	Pri <sup>3</sup>	Sec	Aux	(Vµsec)	Output <sup>5</sup>
RA7040-AL	6	6	3	3	50	0.55	10.75	4.25	61.1	100	12 V, 13 A

- 1. Inductance is for the primary, measured on Agilent/HP 4284A at 200 kHz, 0.5 Vrms, 0 Adc with primary windings connected in parallel.
- Leakage Inductance is for the primary, measured at 200 kHz, 0.5 Vrms, 0 Adc with primary windings connected in parallel and all secondary pins shorted.
- 3. Primary DCR measured with primary windings connected in parallel
- 4. Volt-time product is based on primary windings connected in parallel.
- 5. Output of the secondary, 12 V 13 A, is from pins 11 8, Output of the aux winding is 12 V.
- 6. Electrical specifications at 25°C.

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



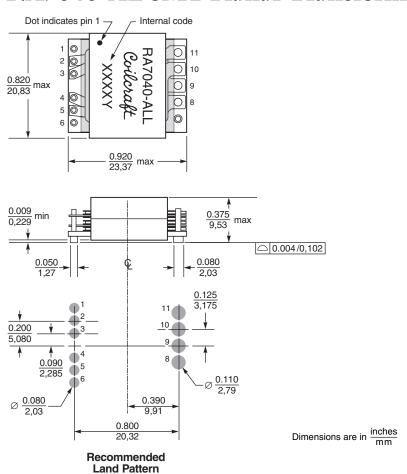
Primary windings to be connected in parallel on the PC board.







## **RA7040-AL SMT Planar Transformer**





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