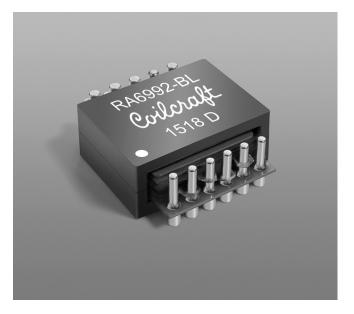


## **SMT Planar Transformer** (PMP9656 Reference Design)

For TI UCC2897



- Developed for Texas Instruments UCC2897 Active Clamp Forward (PMP9656 reference design)
- Rated for 250 Watts
- Designed to operate at 200 kHz with 48 60 Vdc input.
- 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 26.5 g Ambient temperature -40°C to +85°C Maximum part temperature +125°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°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 25 per tray PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787\_PCB\_Washing.pdf.

|             | Turns |     |     | Primary<br>inductance <sup>1</sup> | Leakage<br>inductance <sup>2</sup> DCR ma |         | max (mOhms) <sup>3</sup> |     | Volt-time<br>product typ <sup>4</sup> |            |
|-------------|-------|-----|-----|------------------------------------|---|---------|--------------------------|-----|---------------------------------------|------------|
| Part number | Pri   | Sec | Aux | ±20% (μH)                          | max (µH)                                  | Primary | Secondary                | Aux | (Vµsec)                               | Output     |
| RA6992-BL   | 8     | 4   | 4   | 50                                 | 0.25                                      | 6.9     | 4.2                      | 82  | 206                                   | 12 V, 21 A |

1. Inductance measured on an Agilent/HP 4284 at 200 kHz, 0.5 Vrms, 0 Adc with windings connected in parallel.

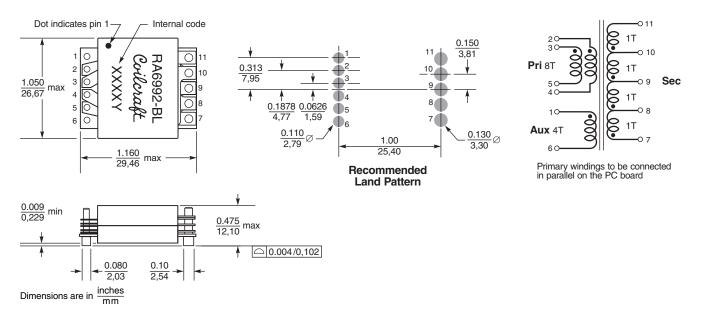
2. Leakage inductance is for the primary with windings connected in parallel, measured at 200 kHz, 0.5 Vrms, 0 Adc with all secondary pins shorted.

3. DCR for primary is measured with the windings connected in parallel. DCR for secondary is measured between pins 7 and 11.

4. Volt-time product is based on primary windings connected in parallel.

5. Electrical specifications at 25°C.

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





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