

Qualified to MIL-PRF-27 and MIL-STD-981, Space-Grade 150 W Planar Transformers Optimized for 28 V Input Forward Converters Offer Lower Cost, Smaller Size, and Higher Density Than Traditional Planar Devices

Product Benefits:

- Input voltage range from 18 V to 36 V
- Designed for the harshest environments:
 - Qualified to MIL-PRF-27 level T, INST-EEE-002, and MIL-STD-981
 - Feature a rugged package with over-molded windings
 - High temperature operation to +130 °C
 - Withstand numerous thermal shock cycles and high levels of mechanical shock and vibration
- Multiple secondary windings with a center tap can power up to two 12 V channels or four 5 V channels
- Available with six screening options:
 - P level screening for design validation testing
 - L level screening for low Earth orbit (LEO) applications
 - INST-EEE-002 level 2 and level 3
 - MIL-STD-981 Table VI class B
 - MIL-STD-981 Table VI and VII class S

Market Applications:

• 28 V forward converters, high reliability switch mode power supplies, and active clamp or dual switch forward converters in avionics, military, and space (AMS) applications

The News:

Vishay Intertechnology introduces a new series of 150 W low profile, space-grade planar transformers with multiple output secondaries – the industry's first such devices optimized for 28 V input forward converters in AMS applications. Offering a lower cost, smaller size, and higher density than traditional planar transformers, Vishay Custom Magnetics SGTPL-28 series components meet the requirements of MIL-PRF-27 level T, INST-EEE-002, and MIL-STD-981.

- The transformers provide up to 40 % greater winding fill than traditional planar devices, resulting in a smaller package size to save PCB space and improve efficiency and power density
- The devices' unique winding technology and internal construction enable easy customization to meet designspecific requirements, while their materials and production techniques allow for lower costs
- Strategic inventory management results in short lead times, typically without non-recurring engineering (NRE) charges for customization





The Key Specifications:

Power: 150 W

Operating temperature: -55 °C to +130 °C

Input voltage range: 18 V to 36 V

Dielectric withstand voltage: 1250 VDC

Leakage inductance: 0.5 μH

Availability:

Samples and production quantities of the SGTPL-28 series are available now, with lead times of eight weeks for P level screening; 12 weeks for L level screening; 16 weeks for B level screening; and 26 weeks for S level screening.

To access the product datasheet on the Vishay Website, go to http://www.vishay.com/ppg?34647 (SGTPL-28)

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