

GMR10D004 ISOLATED 15 W DUAL OUTPUT for OBC in EVs/Large Systems

Description

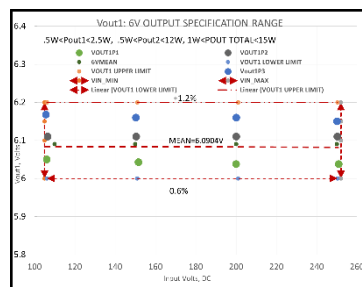
The GMR10D004 is a 15W module designed for rectified AC input. It functions as a flyback converter with isolation and operates with a high line ripple voltage.

This module implements primary side control to provide two well-regulated outputs. The key components used in this design are a wide-input range nonlinear controller with frequency adjustment and the capability to skip cycles at low loads. These features contribute to the effective and efficient operation of the system.

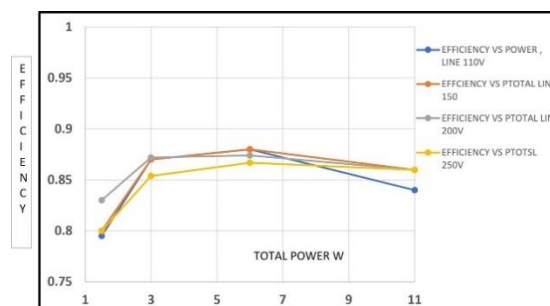
The Transphorm TP65H480G4JSG GaN device serves as the primary switch in this setup. To connect the controller's drive to the switch, an RCD network is used, which effectively divides the drive voltage into positive for the "ON" state and negative for the "OFF" state. This approach helps minimize power dissipation. Furthermore, the system incorporates Schottky diode rectifiers with zero-voltage switching to achieve exceptional efficiency while maintaining a compact form factor.

Features

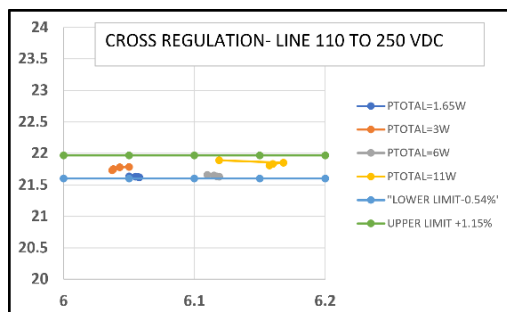
- * Off-line isolated module for effective system level integration, suitable for a wide variety of systems.
- * Easy integration into systems board for startup, compatible with both analog and digital multiple ICs. Can accommodate multiple floating biases in combination with GMR04B004.
- * Designed for biasing multiple HV floating devices, including Gallium Nitride (GaN), Silicon Carbide (SiC), IGBT, and MOSFET in HB/FB applications.
- * Operates at maximum power and temperature without requiring detailed thermal management.



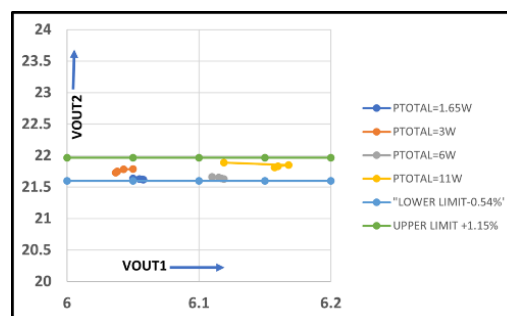
4-Corner regulation of 6V output



4 Corner Efficiency for DC-DC Case



4 Corner Cross Regulation



4 Corner Regulation of 22v Output

Pinout Footprint Dimensions

