

Vishay General Semiconductor

## New isoCink+<sup>™</sup> Series Enhanced Power Bridge Rectifiers 10 A to 25 A (BU Series) and 30 A to 45 A (PB Series)



Vishay's new isoCink+<sup>™</sup> power bridge rectifier series gives designers a space saving, high-current solution for bridge rectifiers in switchmode power supplies (SMPS), home appliances, audio/video equipment, and more. With highly efficient performance comparable to larger size bridge products, the low thermal resistance of power bridge devices reduces size equirements for heat sinks, since less heat needs to be dissipated. Offering a lead pitch and pin layout compatible with the conventional GBU and GSIB-55, isoCink+<sup>™</sup> offers the designers the ability to upgrade system power without changing PCB layouts or heat sinking. A maximum solder temperature of 275 °C/10 s enables high reliability in manual soldering.

## **APPLICATIONS INCLUDE**

- Primary rectification circuit of switch mode power supplies and adaptors for desktop PCs, servers, notebook PCs, plasma display panel (PDP) TVs, LCD TVs, and monitors.
- Primary rectification circuit of inverter type home appliance as in refrigerator, washing machine, air conditioner and induction heater systems.
- Primary rectification circuit in telecom SMPS

| PART NUMBER        | DESCRIPTION  | PACKAGE | V <sub>F</sub> AT I <sub>F</sub> PER CHIP, T <sub>J</sub> |
|--------------------|--|---------|---|
| BU1006 to BU1010   | 600 V thru 1000 V 10 A single-phase bridge rectifier | BU      | 0.88 V typical at 5 A, 150 °C                             |
| BU1006A to BU1010A | 600 V thru 1000 V 10 A single-phase bridge rectifier | BU      | 0.94 V typical at 5 A, 150 °C                             |
| BU1206 to BU1210   | 600 V thru 1000 V 12 A single-phase bridge rectifier | BU      | 0.88 V typical at 6 A, 150 °C                             |
| BU1506 to BU1510   | 600 V thru 1000 V 15 A single-phase bridge rectifier | BU      | 0.87 V typical at 7.5 A, 150 °C                           |
| BU2006 to BU2010   | 600 V thru 1000 V 20 A single-phase bridge rectifier | BU      | 0.85 V typical at 10 A, 150 °C                            |
| BU2506 to BU2510   | 600 V thru 1000 V 25 A single-phase bridge rectifier | BU      | 0.87 V typical at 12.5 A, 150 °C                          |
| BU25H06 to BU25H08 | 600 V thru 800 V 25 A single-phase bridge rectifier  | BU      | 0.87 V typical at 12.5 A, 175 °C                          |
| PB3006 to PB3010   | 600 V thru 1000 V 30 A single-phase bridge rectifier | РВ      | 0.97 V typical at 15 A, 150 °C                            |
| PB3506 to PB3510   | 600 V thru 1000 V 35 A single-phase bridge rectifier | РВ      | 0.90 V typical at 17.5 A, 150 °C                          |
| PB4006 to PB4010   | 600 V thru 1000 V 40 A single-phase bridge rectifier | РВ      | 0.94 V typical at 20 A, 150 °C                            |
| PB5006 to PB5010   | 600 V thru 1000 V 45 A single-phase bridge rectifier | РВ      | 0.90 V typical at 22.5 A, 150 °C                          |