

FEATURES

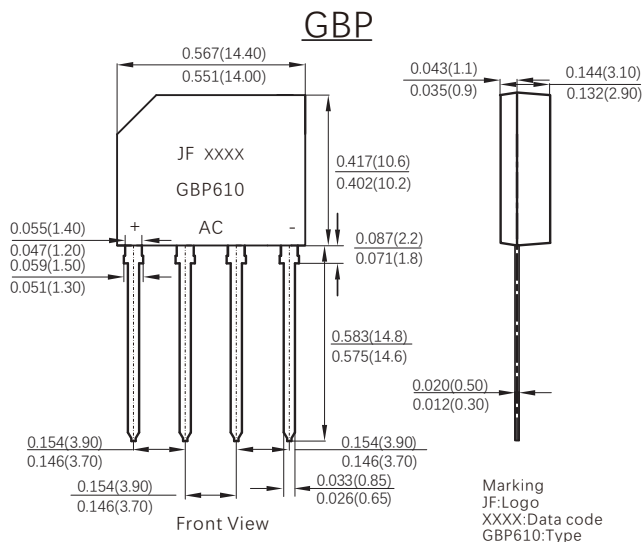
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated chip junction
- High current capability
- Low forward voltage drop
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU

MECHANICAL DATA

- Case: GBP molded plastic body
- Terminals: Plated leads solderable per MIL-STD-750,method 2026
- Mounting Position: Any

TYPICAL APPLICATIONS

Used in AC/DC bridge full wave rectification for SMPS, lighting ballaster, adapter, charger, home appliances, office equipment, and telecommunication applications.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load. For capacitive load, derate current by 20%.)

| Parameters | Symbol | GBP6005 | GBP601 | GBP602 | GBP604 | GBP606 | GBP608 | GBP610 | Units |
|---|------------------------------------|-------------|--------|--------|--------|--------|--------|--------|------------------|
| Maximum Reverse Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 6.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load | I_{FSM} | 150 | | | | | | | Amps |
| Rating for Fusing (t =8.3ms) | I^2t | 93.375 | | | | | | | A ² S |
| Maximum Instantaneous Forward Voltage at 3.0 A DC | V_F | 1.0 | | | | | | | Volts |
| Maximum DC Reverse Current at rated DC blocking voltage | $T_J=25^{\circ}C$ | I_R | | | | | | | μA |
| | $T_J=125^{\circ}C$ | 100 | | | | | | | μA |
| Typical Thermal Resistance | $R_{\theta JA}$ $R_{\theta JC}$ | 45 5 | | | | | | | °C/W |
| Operating Temperature Range | T_J | -55 to +150 | | | | | | | °C |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | °C |

FIG.1-MAXIMUM FORWARD SURNGE CURRENT

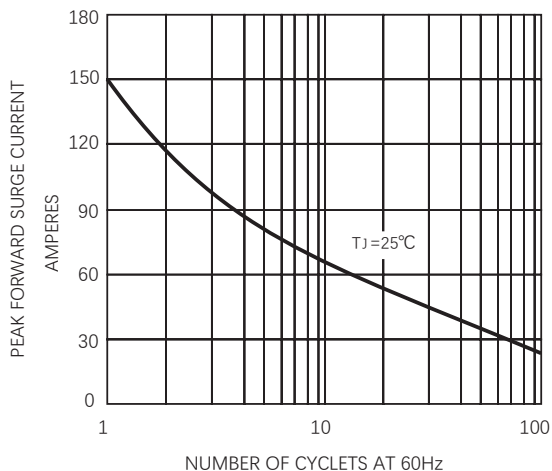


FIG.2 FORWARD CURRENT DERATING CURVE

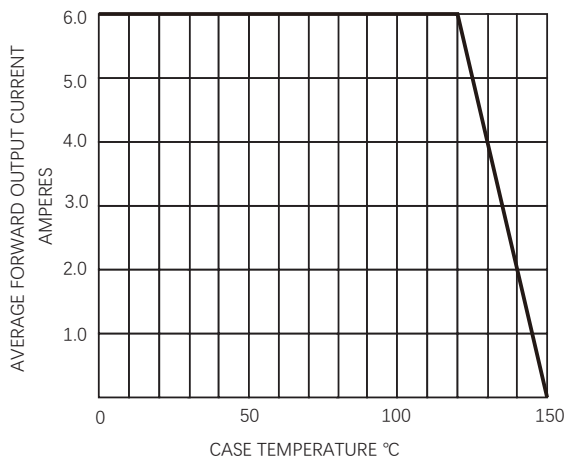


FIG. 3-TYPICAL FORWARD CHARACTERISTICS

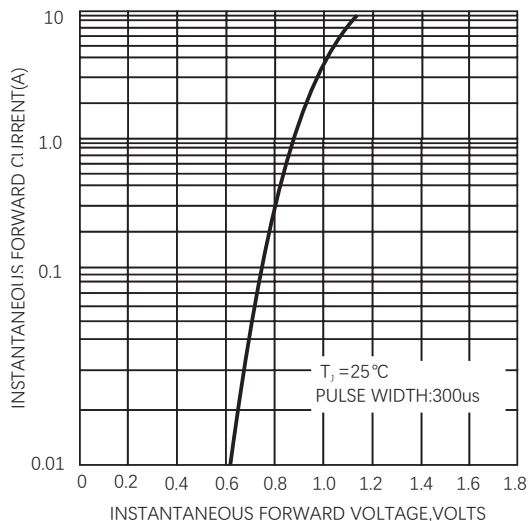
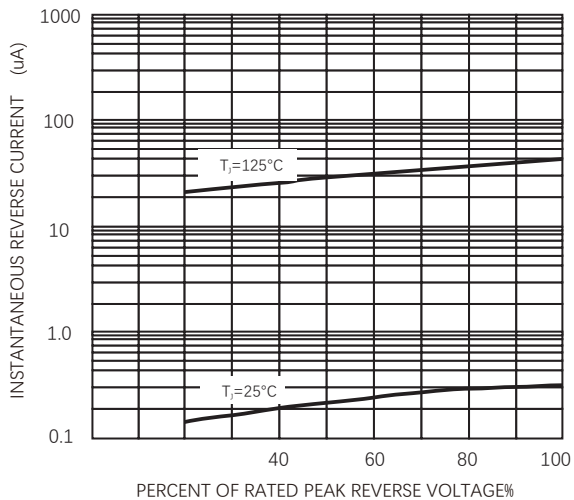


FIG.4 -TYPICAL REVERSE CHARACTERISTICS



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