

VI. Bridge Rectifier

6.0A Glass Passivated Bridge Rectifier GBU6A~GBU6M

(Package: GBU)

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| <p><u>FEATURES</u></p> <ul style="list-style-type: none"> • Surge overload rating –175 amperes peak • Ideal for printed circuit board • Reliable low cost construction utilizing molded plastic technique • Plastic material has Underwriters Laboratory Flammability Classification 94V-0 • Mounting position: Any <p><u>MECHANICAL DATA</u></p> <ul style="list-style-type: none"> • Case : Molded plastic body • Polarity : Polarity symbols marked on case • Handling Precautions : None • Weight : 4.26 grams | <p style="text-align: center;">Case: GBU Dimensions in inches and (millimetres)</p> |
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Ratings & Electrical Characteristics

| Characteristics | Symbol | GBU 6A | GBU 6B | GBU 6D | GBU 6G | GBU 6J | GBU 6K | GBU 6M | Units |
|--|-------------|--------|--------|--------|--------|-------------|--------|--------|---------|
| Maximum recurrent 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 (with heatsink, Note 2) (without heatsink) @ $T_c = 100$ | I_o | | | | | 6.0 | | | Amps |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | | | | | 175 | | | Amps |
| Maximum forward voltage at 6.0A DC | V_F | | | | | 1.1 | | | Volts |
| Maximum DC reverse current @ $T_j=25$ at rated DC blocking voltage @ $T_j=125$ | I_R | | | | | 10.0 | | | μA |
| I^2t Rating for Fusing ($t < 8.3ms$) | I^2t | | | | | 500 | | | |
| I^2t Rating for Fusing ($t < 8.3ms$) | I^2t | | | | | 127 | | | A^2s |
| Typical junction capacitance per element (Note 1) | C_j | | | | | 50 | | | PF |
| Typical thermal resistance (Note 2) | R_{th-JC} | | | | | 2.2 | | | / W |
| Operating temperature range | T_j | | | | | -55 to +150 | | | |
| Storage temperature range | T_{stg} | | | | | -55 to +150 | | | |

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts D.C.
2. Device mounted on 75mm* 75mm* 1.6mm Cu plate heatsink

Ratings and Characteristic Curves of GBU6A~GBU6M

FIG.1-FORWARD CURRENT DERATING CURVE

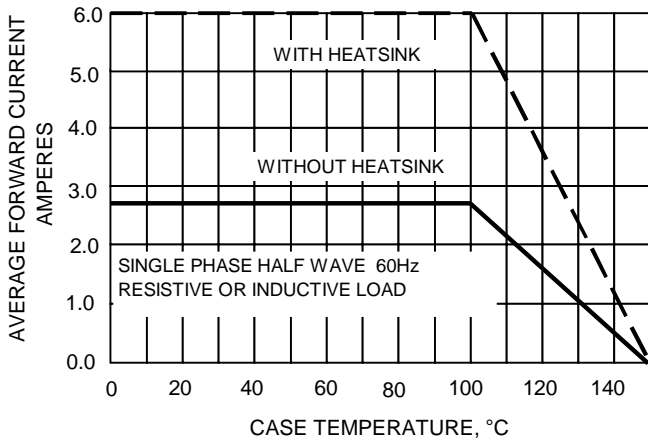


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

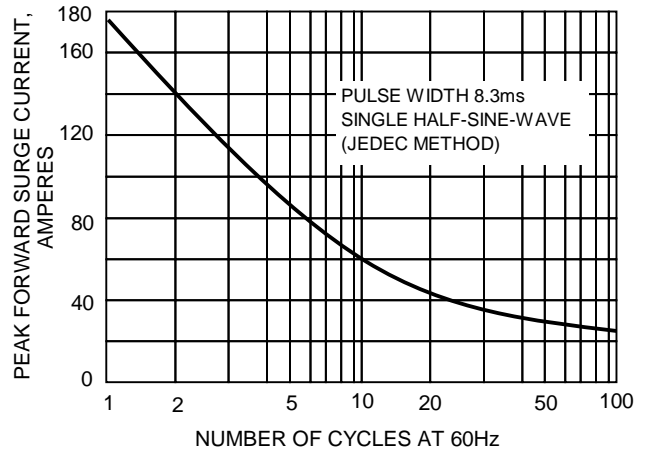


FIG.3-TYPICAL JUNCTION CAPACITANCE

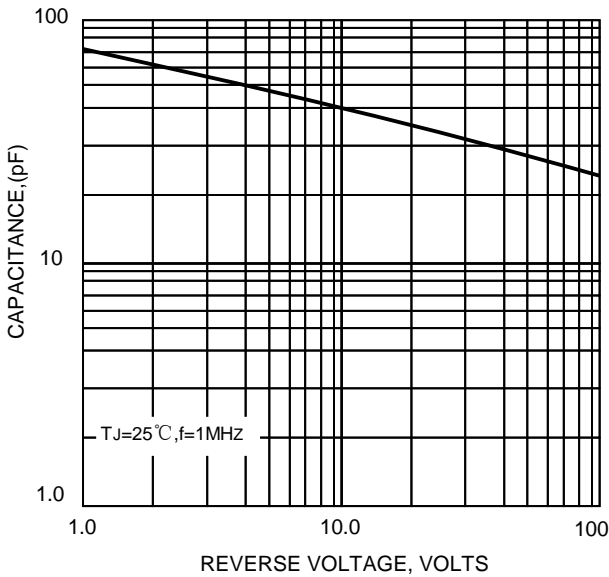


FIG.4-TYPICAL FORWARD CHARACTERISTICS

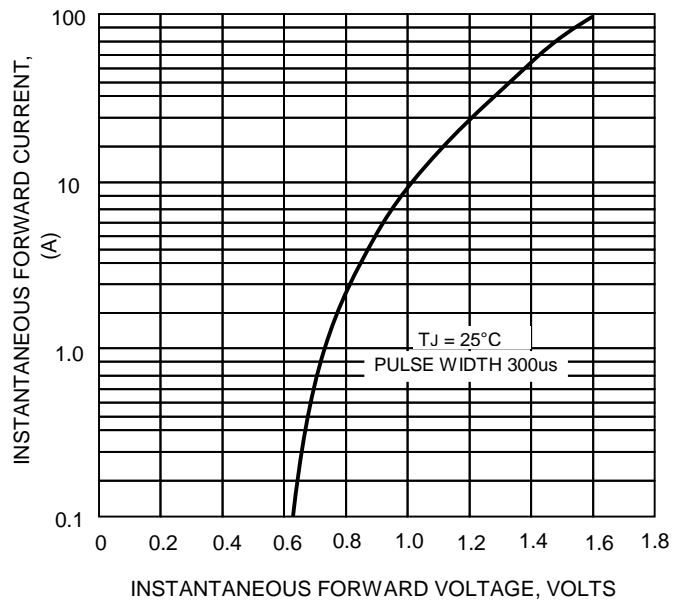


FIG.5-TYPICAL REVERSE CHARACTERISTICS

