

**VOLTAGE RANGE: 50 - 800V**  
**CURRENT: 6.0 A**

### Features

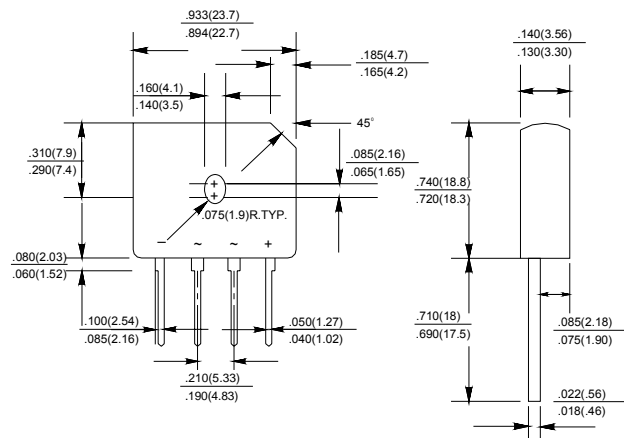
- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards



**GBU**

### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 4.0 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	GBU6A	GBU6B	GBU6D	GBU6G	GBU6J	GBU6K	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$							V
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	V
DC Blocking Voltage	$V_R$							V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	V
Average Rectified Output Current @ $T_C = 100^\circ\text{C}$	$I_O$	6.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	175						A
$I^2t$ Rating for Fusing ( $t < 8.35\text{ms}$ )	$I^2t$	127						$\text{A}^2\text{s}$
Forward Voltage (per element) @ $I_F = 6.0\text{A}$	$V_{FM}$	1.0						V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 100^\circ\text{C}$	$I_R$	5.0 500						$\mu\text{A}$
Typical Thermal Resistance (per leg) (Note 1)	$R_{\theta JA}$	8.6						K/W
Typical Thermal Resistance (per leg) (Note 2)	$R_{\theta JC}$	3.1						K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-55 to +150						$^\circ\text{C}$

Note: 1. Thermal resistance junction to ambient, mounted on PCB at 9.5mm lead length with 12mm<sup>2</sup> copper pads.  
 2. Thermal resistance junction to case, mounted on 6.5 x 3.5 x 0.15cm thick AL plate.

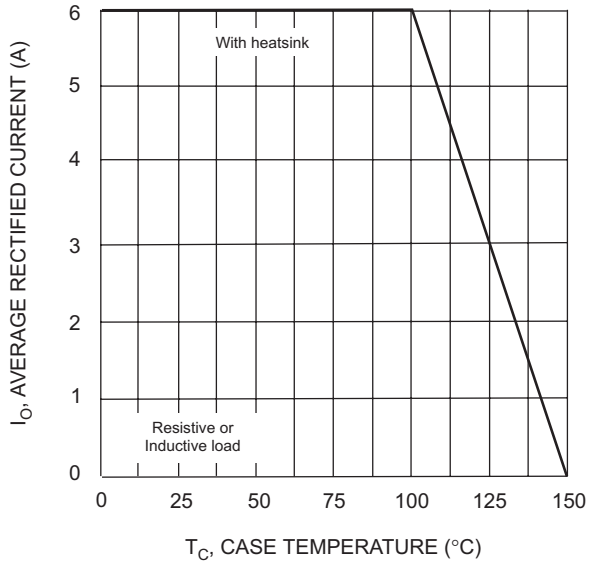


Fig. 1 Forward Current Derating Curve

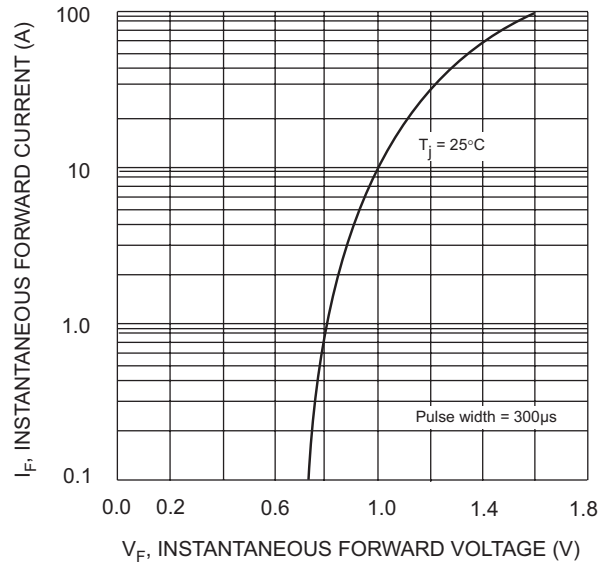


Fig. 2 Typical Forward Characteristics, per element

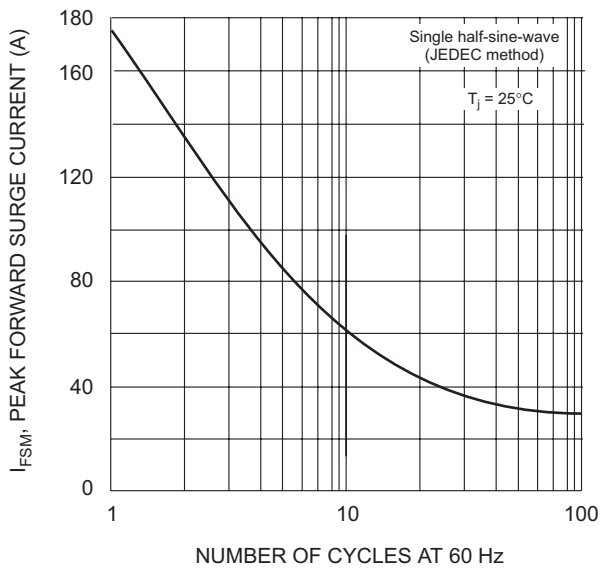


Fig. 3 Maximum Non-Repetitive Surge Current

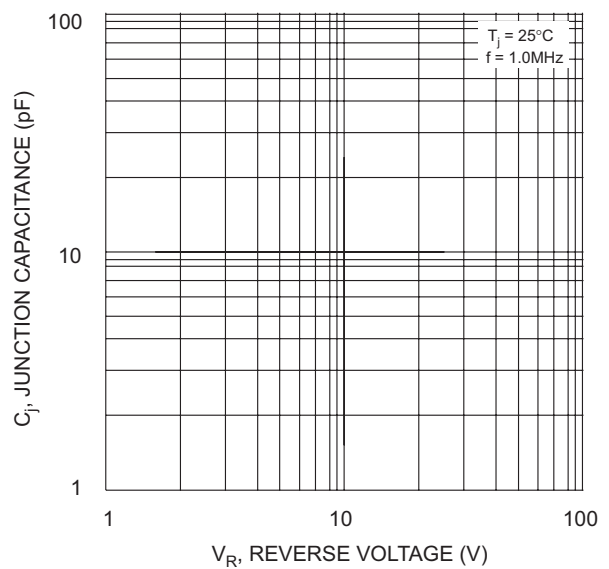


Fig. 4 Typical Junction Capacitance