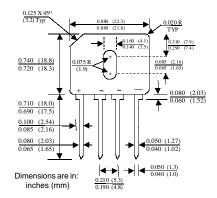


# GBU6A - GBU6M

### **Features**

- Surge overload rating: 175 amperes peak.
- Reliable low cost construction utilizing molded plastic technique.
- Ideal for printed circuit board.





## 6.0 Ampere Bridge Rectifiers

### **Absolute Maximum Ratings\***

T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units	
lo	Average Rectified Current @ T <sub>A</sub> = 100°C	6.0	Α	
İf(surge)	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	175	А	
P <sub>D</sub>	Total Device Dissipation  Derate above 25°C	14.5	W mW/°C	
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,** per leg	8.6	°C/W	
$R_{\theta JC}$	Thermal Resistance, Junction to Case,*** per leg	3.1	°C/W	
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C	
TJ	Operating Junction Temperature	-55 to +150	°C	

<sup>\*</sup>These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics T<sub>A</sub>:

T<sub>A</sub> = 25°C unless otherwise noted

Parameter			Device						Units
		6A	6B	6D	6G	6J	6K	6M	
Peak Repetitive Reverse Voltage			100	200	400	600	800	1000	V
Maximum RMS Input Voltage			70	140	280	420	560	700	V
DC Reverse Voltage (Rated V <sub>R</sub> )			100	200	400	600	800	1000	V
Maximum Reverse Leakage, per element @ rated $V_R$ $T_A = 25^{\circ}C$ $T_A = 125^{\circ}C$			5.0 500						μΑ μΑ
Maximum Forward Voltage Drop, per element @ 6.0 A		1.0						V	
$l^2$ t rating for fusing $t < 8.35 \text{ ms}$		127						A <sup>2</sup> Sec	

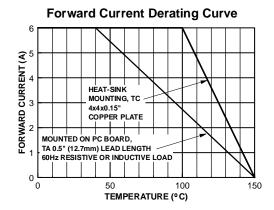
<sup>\*\*</sup> Device mounted on PCB with 0.5 x 0.5" (12 x 12 mm).

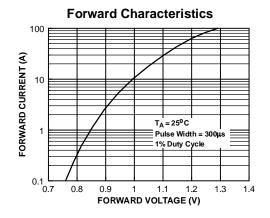
<sup>\*\*\*</sup> Device mounted on Al plate with 2.6 x 1.4" x 0.06" (6,5 x 3.5 x 0.15 cm).

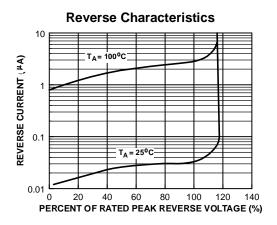
## **Bridge Rectifiers**

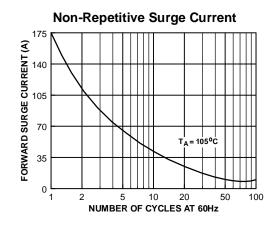
(continued)

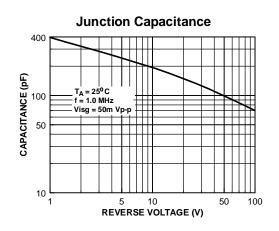
## **Typical Characteristics**











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FACT Quiet Series  $^{\text{TM}}$  Quiet Series  $^{\text{TM}}$  SuperSOT  $^{\text{TM}}$ -3 SuperSOT  $^{\text{TM}}$ -6 GTO  $^{\text{TM}}$  SuperSOT  $^{\text{TM}}$ -8 HiSeC  $^{\text{TM}}$  TinyLogic  $^{\text{TM}}$ 

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#### **Definition of Terms**

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