

GBU6A - GBU6M

Features

- Glass passivated junction.
- Surge overload rating: 175 amperes peak.
- Reliable low cost construction utilizing molded plastic technique.
- Ideal for printed circuit board.
- UL certified, UL #E111753.



Bridge Rectifiers

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value						Units	
		6A	6B	6D	6G	6J	6K	6M	
V_{RRM}	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
V _{RMS}	Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
V _R	DC Reverse Voltage (Rated V _R)	50	100	200	400	600	800	1000	V
I _{F(AV)}	Average Rectified Forward Current, @ T _A = 100°C	6.0		Α					
I _{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	175		А					
T _{stg}	Storage Temperature Range	-55 to +150		°C					
T _J	Operating Junction Temperature -55 to +150			°C					

^{*}These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	12	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,* per leg	8.6	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead,** per leg	3.1	°C/W

^{*}Device mounted on PCB with 0.5 x 0.5" (12 x 12 mm).

Electrical Characteristics T_A = 25°C unless otherwise noted

Symbol	Parameter	Device	Units
V_{F}	Forward Voltage, per element @ 6.0 A	1.0	V
I _R	Reverse Current, per element @ rated V_R $T_A = 25^{\circ}C$ $T_A = 125^{\circ}C$	5.0 500	μΑ μΑ
	I^2 t rating for fusing t < 8.35 ms	127	A ² s

^{**}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

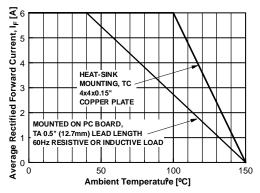


Figure 1. Forward Current Derating Curve

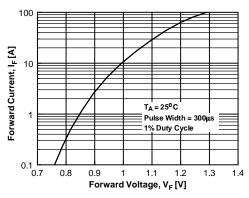


Figure 2. Forward Voltage Characteristics

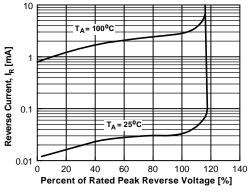


Figure 3. Reverse Current vs Reverse Voltage

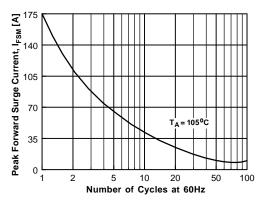


Figure 4. Non-Repetitive Surge Current

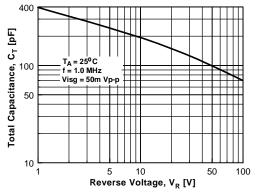


Figure 5. Total Capacitance

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