

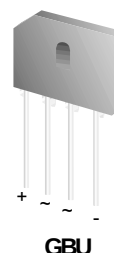


GBU8A - GBU8M

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Features

- Glass passivated junction.
- Surge overload rating: 200 amperes peak.
- Reliable low cost construction utilizing molded plastic technique.
- Ideal for printed circuit board.



Bridge Rectifiers

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value							Units
		8A	8B	8D	8G	8J	8K	8M	
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, @ $T_A = 100^\circ\text{C}$ @ $T_A = 45^\circ\text{C}$	8.0							A
		6.0							A
I_{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	200							A
T_{stg}	Storage Temperature Range	-55 to +150							$^\circ\text{C}$
T_J	Operating Junction Temperature	-55 to +150							$^\circ\text{C}$

*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	16	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient,* per leg	18	$^\circ\text{C/W}$

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

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Device	Units
V_F	Forward Voltage, per element @ 8.0 A	1.0	V
I_R	Reverse Current, per element @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	5.0	μA
		500	μA
		166	A^2s
	I^2t rating for fusing $t < 8.35$ ms	166	

Bridge Rectifiers
(continued)

Typical Characteristics

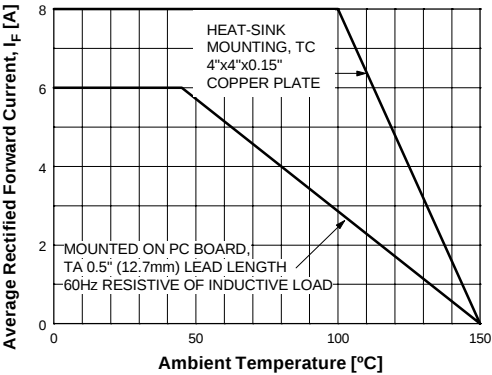


Figure 1. Forward Current Derating Curve

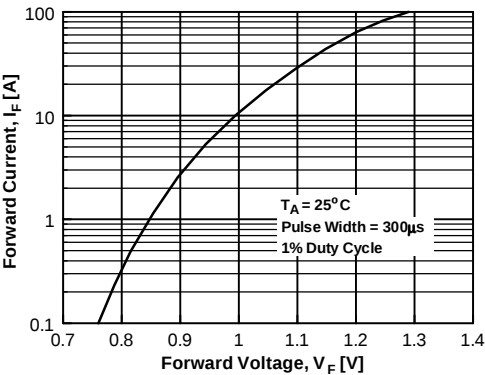


Figure 2. Forward Voltage Characteristics

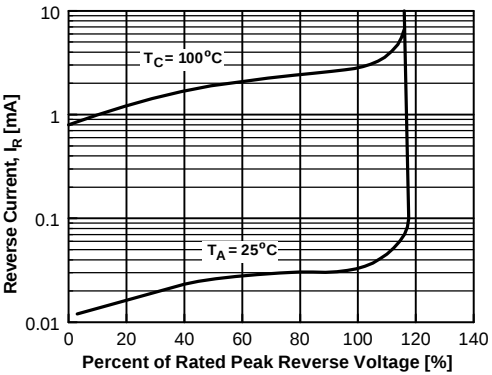


Figure 3. Reverse Current vs Reverse Voltage

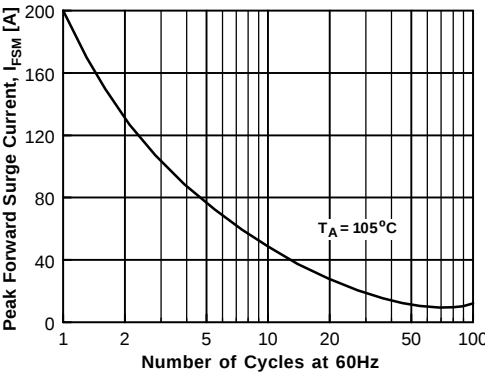


Figure 4. Non-Repetitive Surge Current

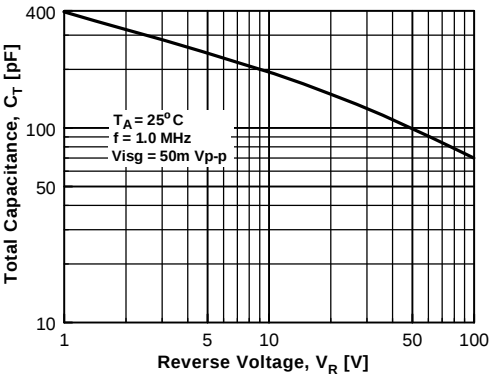


Figure 5. Total Capacitance

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