

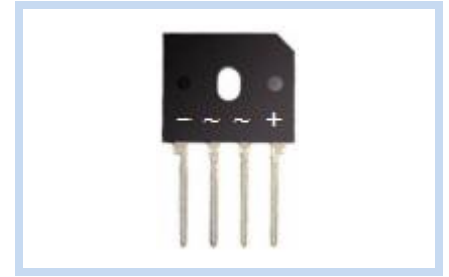
# Single-Phase Bridge Rectifier 6.0A GBU Package

GBU6 Series

MERITEK

## FEATURE

- Operating Temperature: -55 ~ +150°C
- Average Forward Rectified Output Current 6.0A
- Repetitive Reverse Voltage from 50~1000V
- Surge Overload Ratings to 175A
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



## MAXIMUM RATINGS AND THERMAL CHARACTERISTICS



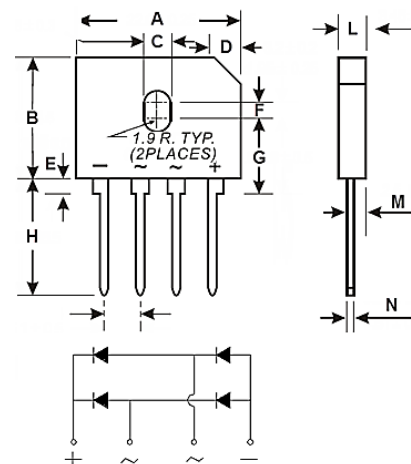
Parameter	Code	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_F$	6.0, $T_A=100^\circ\text{C}$ with heatsink							A
		2.8, $T_A=100^\circ\text{C}$ without heatsink							
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	175							A
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	127							$\text{A}^2\text{sec}$
Maximum Instantaneous Forward Voltage Drop per Diode	$V_F$	1.1, $I_F=3.0\text{A}$							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element	$I_R$	5.0, $T_A=25^\circ\text{C}$							$\mu\text{A}$
	$I_R$	500, $T_A=125^\circ\text{C}$							$\mu\text{A}$
Operating Junction and Storage Temperature	$T_J, T_{STG}$	-55~150							$^\circ\text{C}$
Typical Thermal Resistance per Element	$R_{\theta JA}$	2.2							$^\circ\text{C/W}$

### Note:

1. Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz. For Capacitive load derate current by 20%.
2. Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.
3. Thermal resistance from junction to ambient on P.C. board mounting.

## DIMENSION AND PIN CONFIGURATION

Item	Min. (mm)	Max. (mm)	Item	Min. (mm)	Max. (mm)
A	21.75	22.25	G	10.30	11.30
B	18.20	19.20	H	17.25	18.25
C	3.50	4.10	K	4.60	5.60
D	3.00	3.40	L	3.30	3.60
E	1.45	2.45	M	2.30	2.70
F	1.70	2.20	N	0.46	0.56



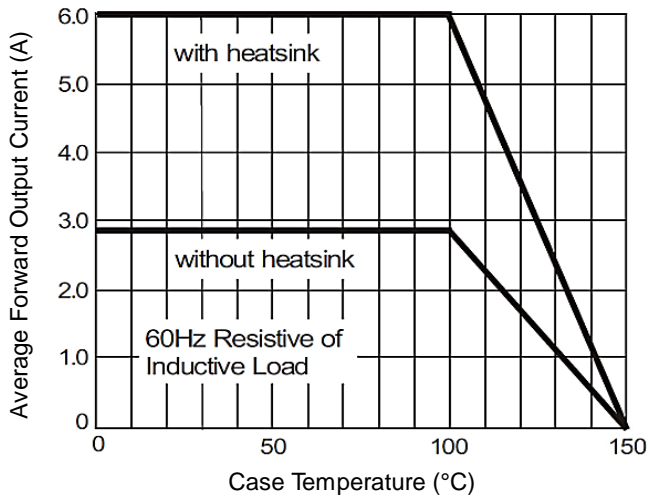
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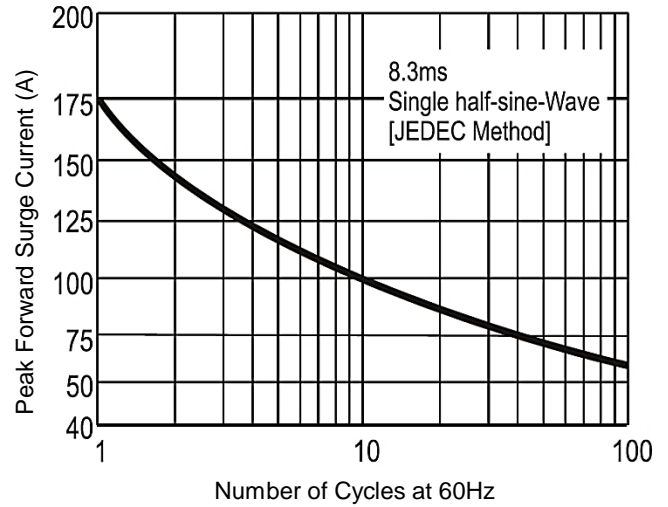
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## RATING AND CHARACTERISTIC CURVES

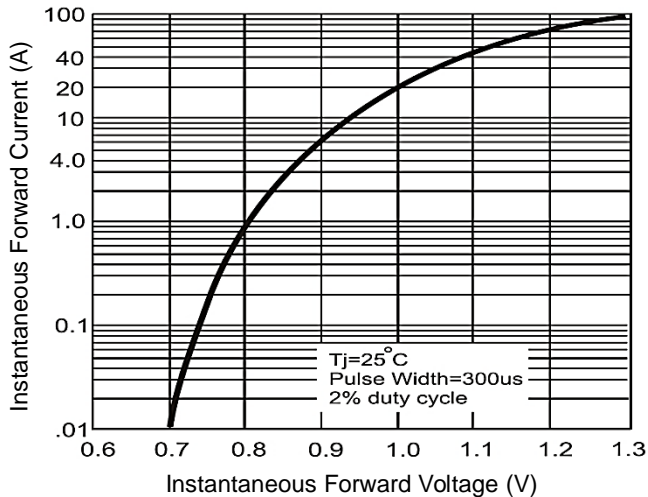
Derating Curve for Output Rectified Current



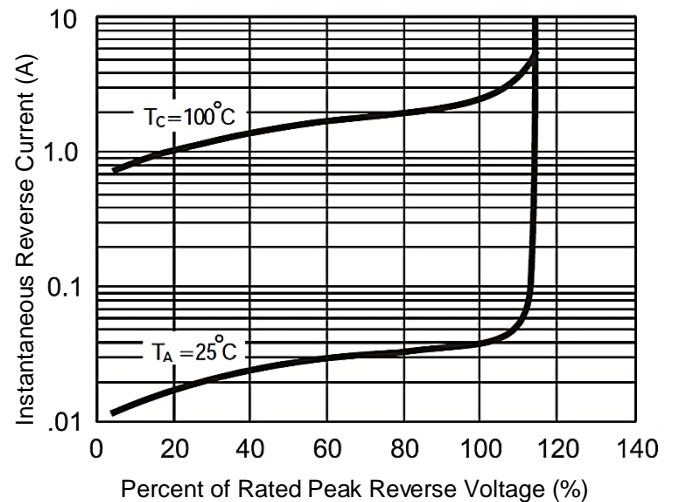
Maximum Non-Repetitive Peak Forward Surge Current



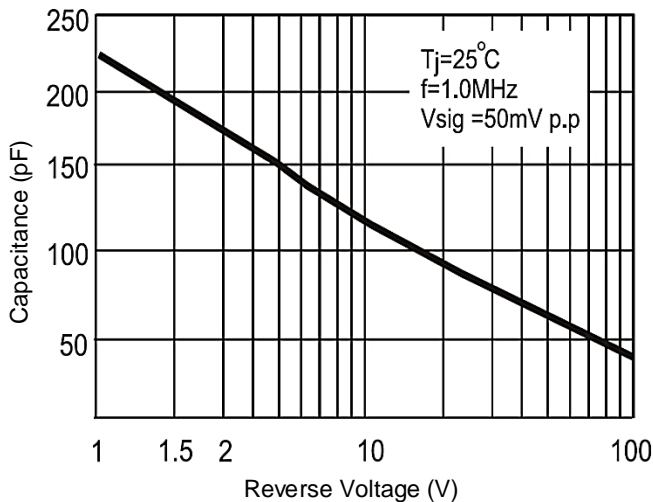
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



\*Specifications subject to change without notice.