

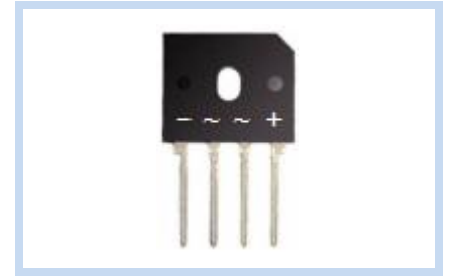
Single-Phase Bridge Rectifier 10.0A GBU Package

GBU10 Series

MERITEK

FEATURE

- Operating Temperature: -55 ~ +150°C
- Average Forward Rectified Output Current 10.0A
- Repetitive Reverse Voltage from 50~1000V
- Surge Overload Ratings to 220A
- Flammability Classification 94V-0
- UL Safety Approved: Certification No: E223027



MAXIMUM RATINGS AND THERMAL CHARACTERISTICS



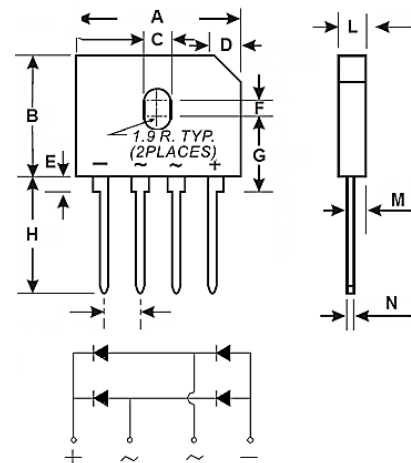
Parameter	Code	GBU 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I_F	10.0, $T_C=100^\circ\text{C}$ with heatsink							A
		3.2, $T_C=100^\circ\text{C}$ without heatsink							
Peak Forward Surge Current Single Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	220							A
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	200							A^2sec
Maximum Instantaneous Forward Voltage Drop per Diode	V_F	1.0, $I_F=5.0\text{A}$							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Element	I_R	5.0, $T_A=25^\circ\text{C}$							μA
	I_R	500, $T_A=125^\circ\text{C}$							μA
Operating Junction and Storage Temperature	T_J, T_{STG}	-55~150							$^\circ\text{C}$
Typical Thermal Resistance per Element	$R_{\theta JC}$	2.0							$^\circ\text{C/W}$

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 150mm x150mm x1.6mm copper plate heatsink.

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



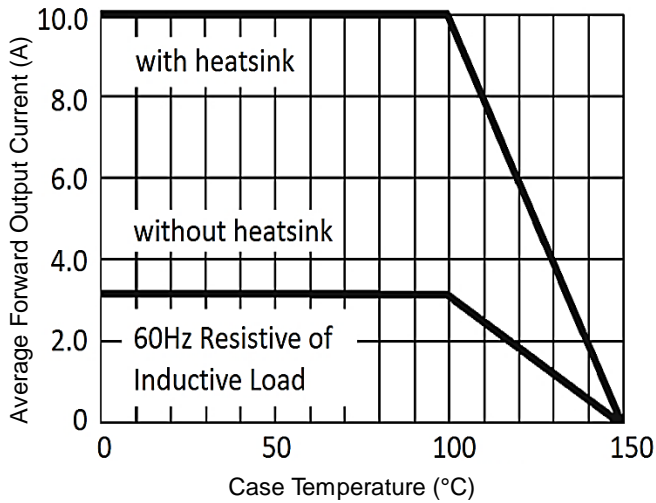
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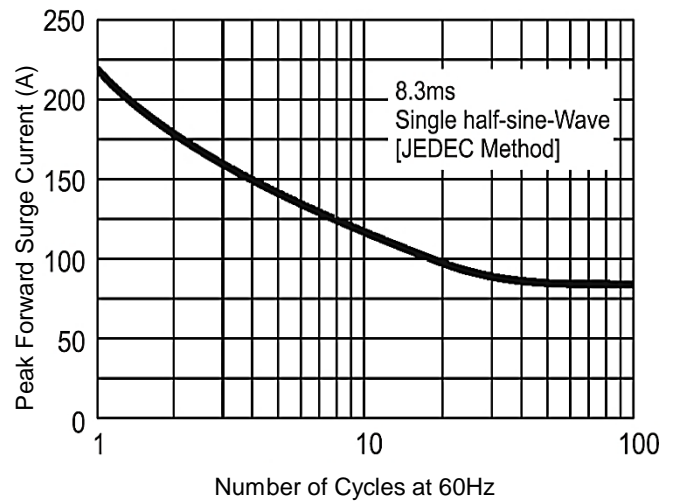
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RATING AND CHARACTERISTIC CURVES

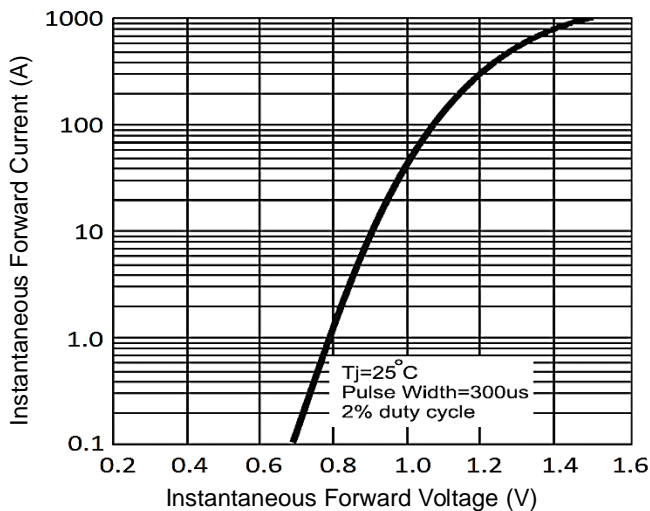
Derating Curve for Output Rectified Current



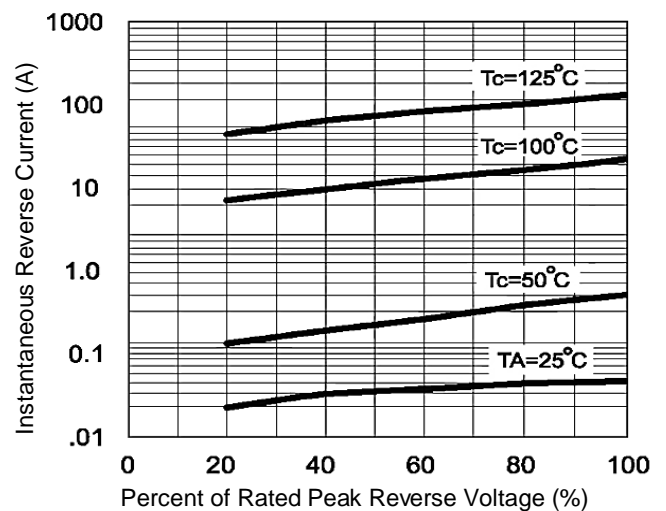
Maximum Non-Repetitive Peak Forward Surge Current



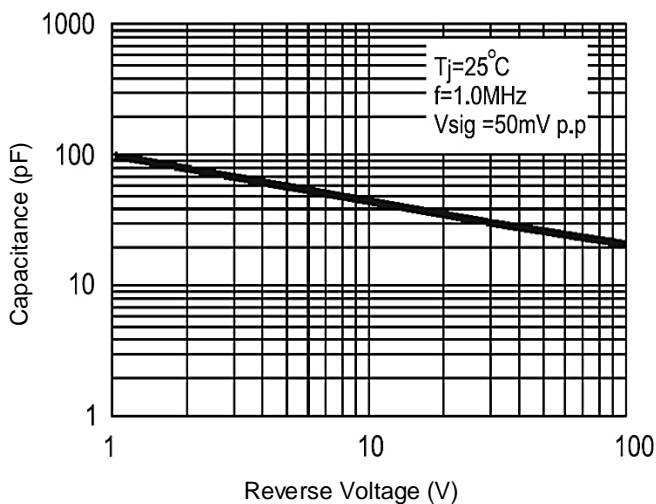
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



*Specifications subject to change without notice.