SILICON BRIDGE RECTIFIERS GLASS PASSIVATED BRIDGE RECTIFIERS
**GBU10005 thru GBU1010 SERIES 50 to 1000 V 10.0 A**

FEATURES

GBU

- Surge overload rating-150 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing
  Molded plastic technique
- Plastic material has Underwriters Laboratory
  Flammability classification 94V-O
- Mounting Position: Any

Dimensions in inches and Dimensions in inches and (millimeters)
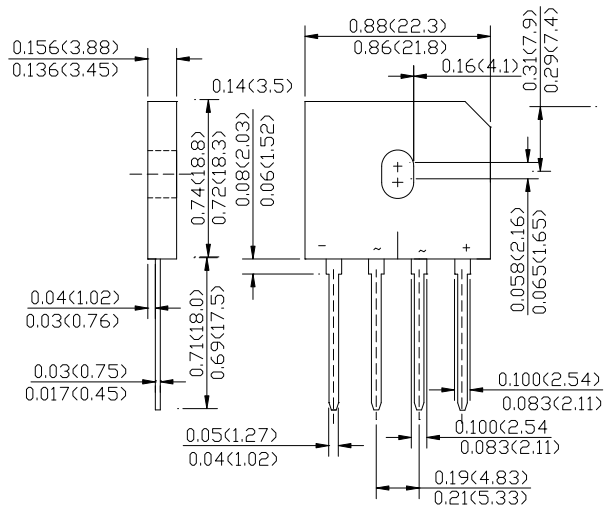
Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase , half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

		GBU10005	GBU1001	GBU1002	GBU1004	GBU1006	GBU1008	GBU1010	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward (with heatsink Note2) Rectified Current @ T_C =100℃ (without heatsink)	$I_{(AV)}$	10.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							Amp
Maximum DC Forward Voltage at 5.0A DC	V_F	1. 1							Volts
Maximum DC Reverse Current at rated @ T_A=25℃ DC Blocking Voltage Per Element 5@ T_A=100℃	I_R	5 500							uAmp
I²t Rating for fusing (t<8.3ms)	I^2T	166							A^2S
Typical Junction Capacitance (Note 1)	C_J	60							pF
Typical Thermal Resistance (Note 2)	$R_{\Theta JC}$	3.0							℃/W
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

Notes:
1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 100mm x 100mm X 1.6mm Cu Plate Heatsink.

RATINGS AND CHARACTERISTIC CURVES (GBU10005 THRU GBU1010)
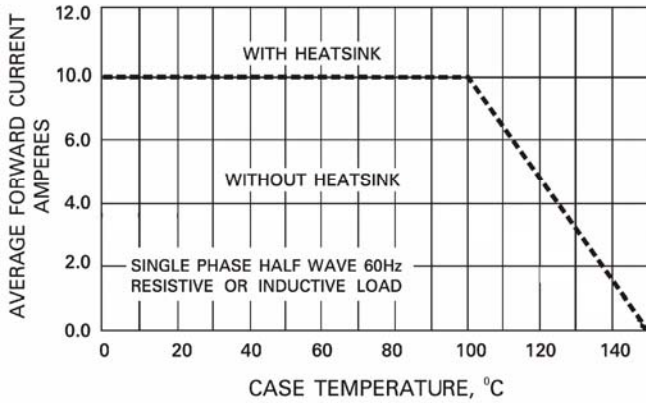
FIG. 1 - FORWARD CURRENT DERATING CURVE

WITH HEATSINK

WITHOUT HEATSINK

SINGLE PHASE HALF WAVE 60Hz
RESISTIVE OR INDUCTIVE LOAD

FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

Single Half Sine-Wave
(JEDEC METHOD)
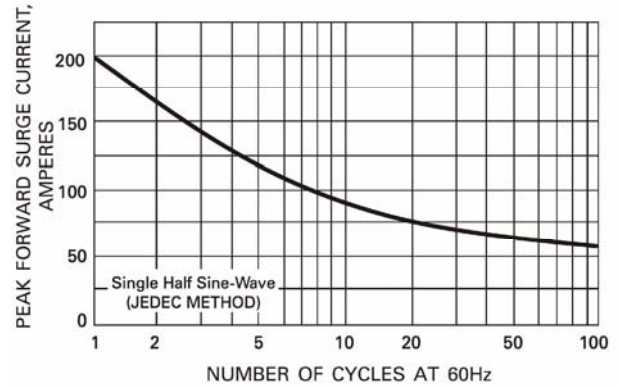
FIG. 3 - TYPICAL JUNCTION CAPACITANCE

$T_J = 25°C$, f = 1MHz
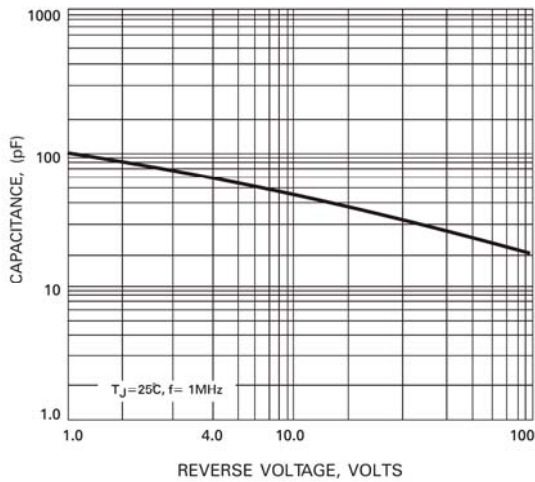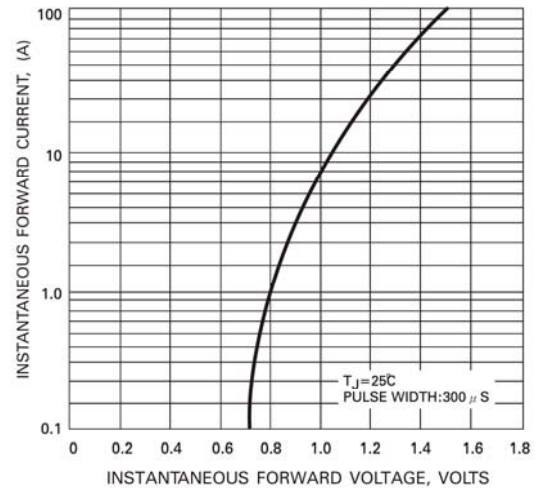
FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

$T_J = 25°C$
PULSE WIDTH: 300 μS

FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

$T_J = 125°C$

$T_J = 100°C$

$T_J = 50°C$

$T_J = 25°C$