



# GBU6005C thru GBU610C

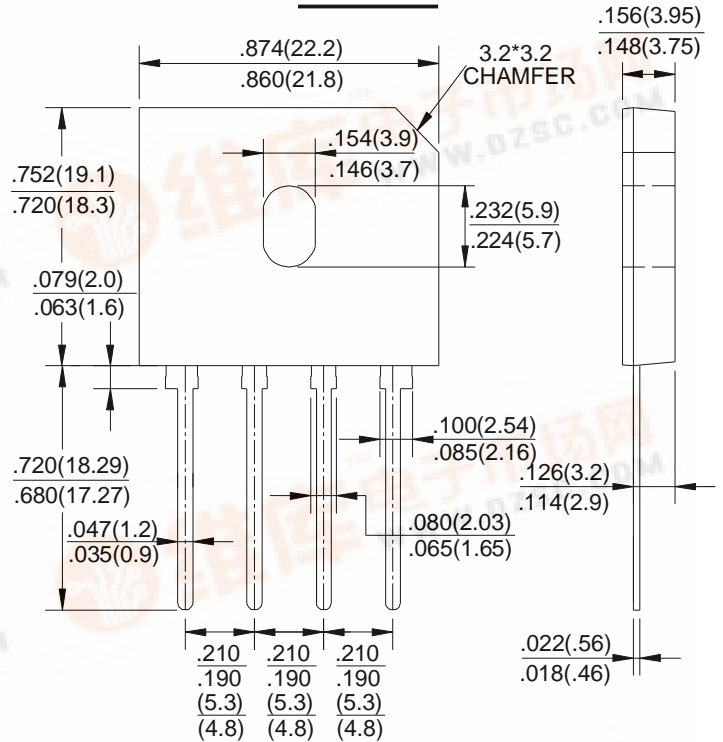
## SILICON BRIDGE RECTIFIERS

REVERSE VOLTAGE - 50 to 1000Volts  
FORWARD CURRENT - 6.0 Amperes

### FEATURES

- Surge overload rating -175 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has U/L flammability classification 94V-0
- Mounting position:Any

### GBU-C



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	GBU 6005C	GBU 601C	GBU 602C	GBU 604C	GBU 606C	GBU 608C	GBU 610C	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	30	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current (with heatsink Note 2) @ T <sub>c</sub> =100°C (without heatsink)	I <sub>(AV)</sub>				6.0	2.8			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>				175				A
Maximum Forward Voltage at 3.0A DC	V <sub>F</sub>				1.0				V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T <sub>J</sub> =25°C @ T <sub>J</sub> =125°C	I <sub>R</sub>				10.0	500			uA
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t				127				A <sup>2</sup> s
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>				50				pF
Typical Thermal Resistance (Note2)	R <sub>θJC</sub>				2.2				°C/W
Operating Temperature Range	T <sub>J</sub>				-55 to +125				°C
Storage Temperature Range	T <sub>STG</sub>				-55 to +150				°C

NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on 75mm\*75mm\*1.6mm cu plate heatsink.



# RATING AND CHARACTERISTIC CURVES

## GBU6005C thru GBU610C SERIES



FIG.1-FORWARD CURRENT DERATING CURVE

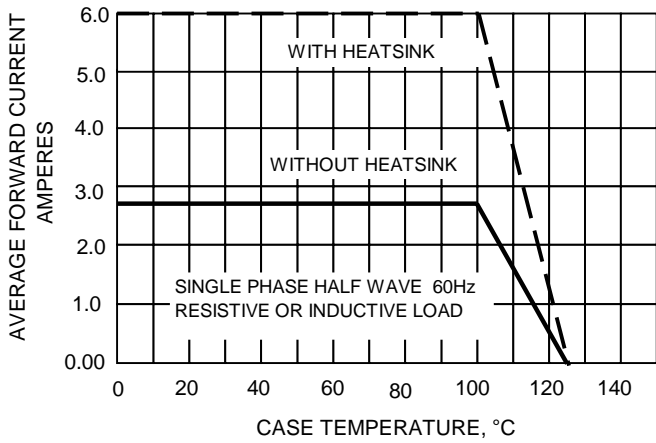


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

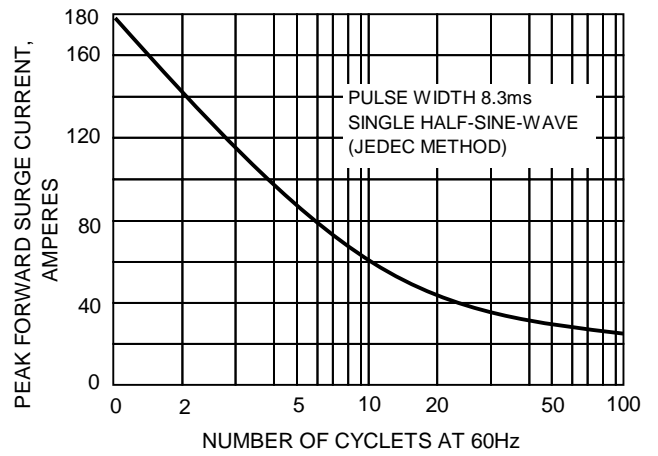


FIG.3-TYPICAL JUNCTION CAPACITANCE

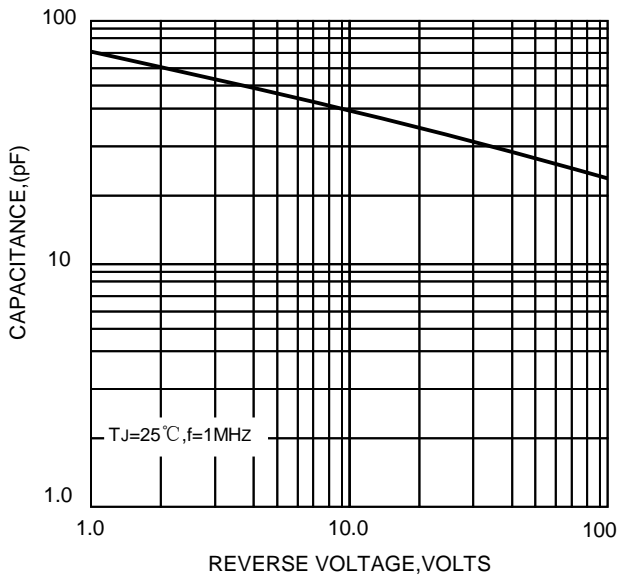


FIG.4-TYPICAL FORWARD CHARACTERISTICS

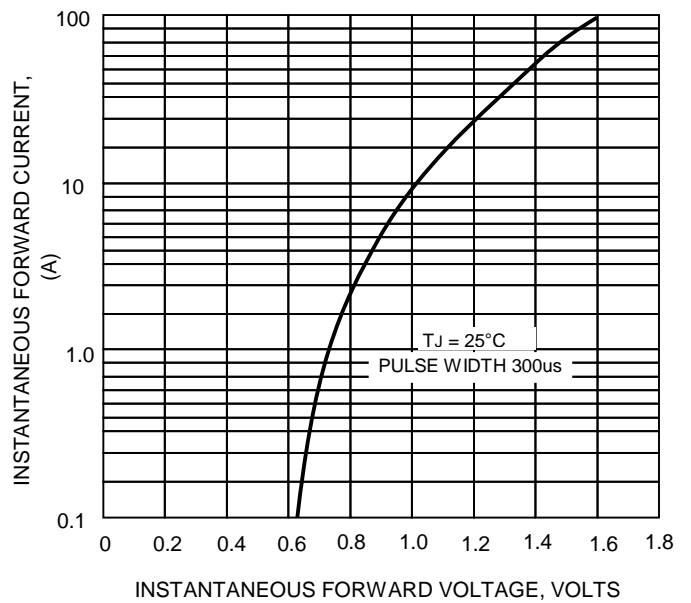


FIG.5-TYPICAL REVERSE CHARACTERISTICS

