

GBU6A thru GBU6M SERIES

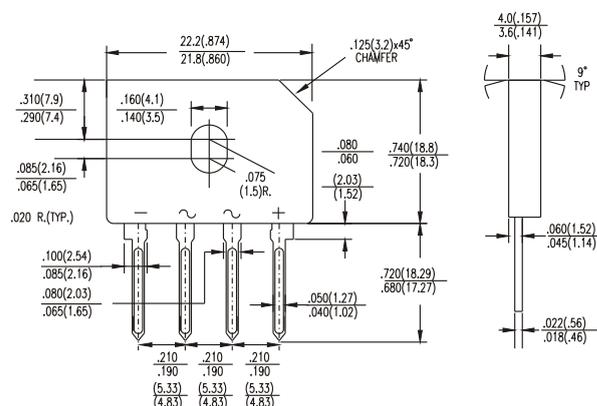
SILICON BRIDGE RECTIFIERS
GLASS PASSIVATED
BRIDGE RECTIFIERS



**CHENG-YI
ELECTRONIC**



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



Dimensions in inches and (millimeters)

FEATURES

- Surge overload rating-175 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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		GBU6A	GBU6B	GBU6D	GBU6G	GBU6J	GBU6K	GBU6M	UNITS	
Maximum Recurrent 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 (with heatsink Note2) Rectified Current @ $T_C=100^\circ\text{C}$ (without heatsink)	$I_{(AV)}$	6.0						2.8		A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	175								A
Maximum DC Forward Voltage at 3.0A DC	V_F	1.0								V
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	5.0						500		μA
$I^2 t$ Rating for fusing ($t < 8.3\text{ms}$)	$I^2 t$	127								A^2S
Typical Junction Capacitance per element(Note1)	C_J	50								pF
Typical Thermal Resistance (Note2)	$R\theta_{JC}$	2.2								$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to +150								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150								$^\circ\text{C}$

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 75mm x 75mm X 1.6mm Cu Plate Heatsink.

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RATING AND CHARACTERISTICS CURVES GBU6A THRU GBU6M

FIG. 1 - FORWARD CURRENT DERATING CURVE

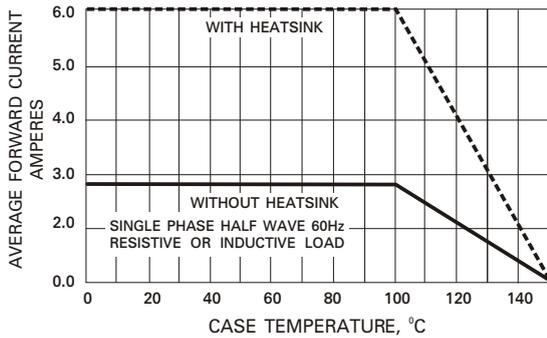


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

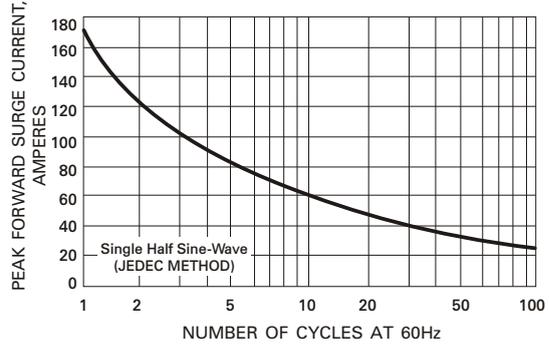


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

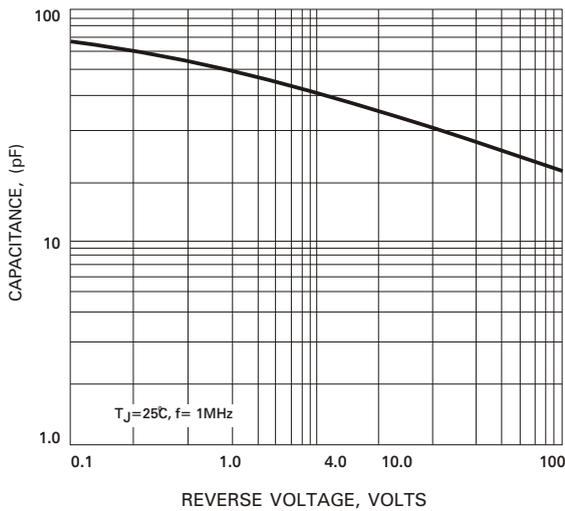


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

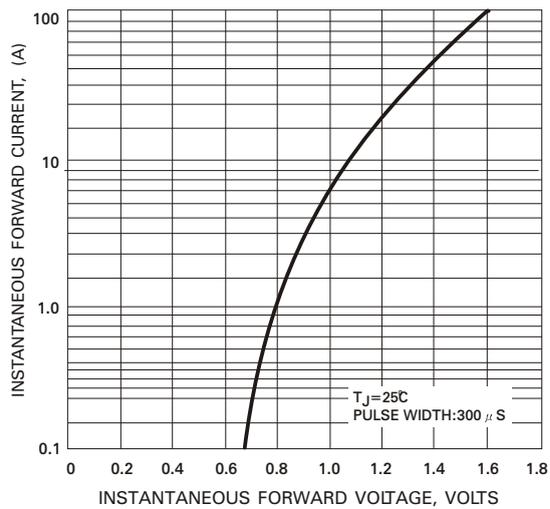


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

