

## GBU1508P

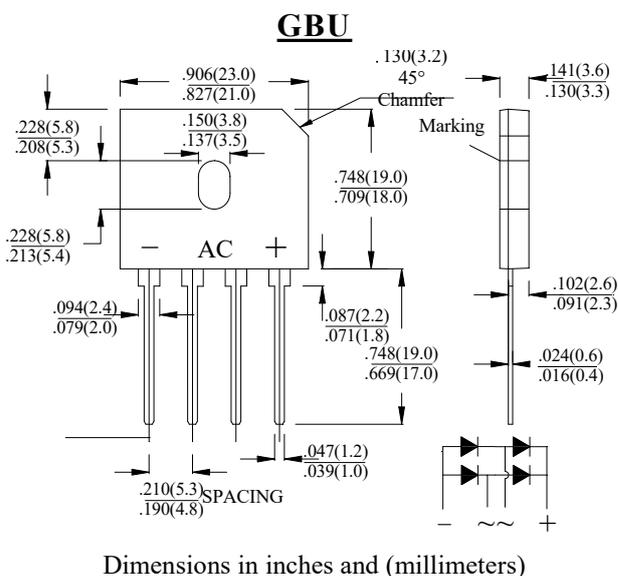
### SINGLE PHASE 15.0AMPS.LOW VF BRIDGE RECTIFIERS

#### FEATURE

- . Low forward drop enhance the efficiency
- . High case dielectric strength
- . Low Reverse Leakage Current
- . High surge current capability
- . Ideal for Printed Circuit Board Applications

#### MECHANICAL DATA

- . Case: GBU
- . Case Material: Molded Plastic.  
UL Flammability Classification Rating 94V-0
- . Terminals: Pure tin plated, Lead free.  
Leads solderable per MIL-STD-750, Method 2026.
- . Polarity: Molded on Body
- . Mounting: Through Hole for #6 Screw
- . Mounting Torque: 5.0 in-lbs Maximum
- . Weight: 3.8 grams



#### 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%

Type Number	SYM BOL	GBU1508P		units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	800		V
Maximum RMS Voltage	$V_{RMS}$	560		V
Maximum DC blocking Voltage	$V_{DC}$	800		V
Maximum Average Forward (with heatsink Note2) Rectified Current @ $T_C=100^\circ\text{C}$ (without heatsink)	$I_{F(AV)}$	15.0 3.2		A
Peak Forward Surge Current @ $T_J=25^\circ\text{C}$ 8.3ms single half sine-wave @ $T_J=125^\circ\text{C}$	$I_{FSM}$	240 200		A
Peak Forward Surge Current @ $T_J=25^\circ\text{C}$ 1.0ms single half sine-wave @ $T_J=125^\circ\text{C}$	$I_{FSM}$	480 400		A
Maximum Forward Voltage Drop per element @ 7.5A DC	$V_F$	Typ 0.90	Max 0.95	V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=125^\circ\text{C}$	$I_R$	5.0 500.0		$\mu\text{A}$
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	239		$\text{A}^2\text{Sec}$
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	500		nS
Typical Junction Capacitance (Note 2)	$C_J$	200		pF
Typical Thermal Resistance (Note 3)	$R_{(JC)}$	2.2		$^\circ\text{C}/\text{W}$
Storage Temperature	$T_{STG}$	-55 to +150		$^\circ\text{C}$
Operating Junction Temperature	$T_J$	-55 to +150		$^\circ\text{C}$

#### Note:

1. Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Device mounted on 200mm x 200mm x 2.0mm Cu Plate Heatsink.

Rating and Characteristic Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

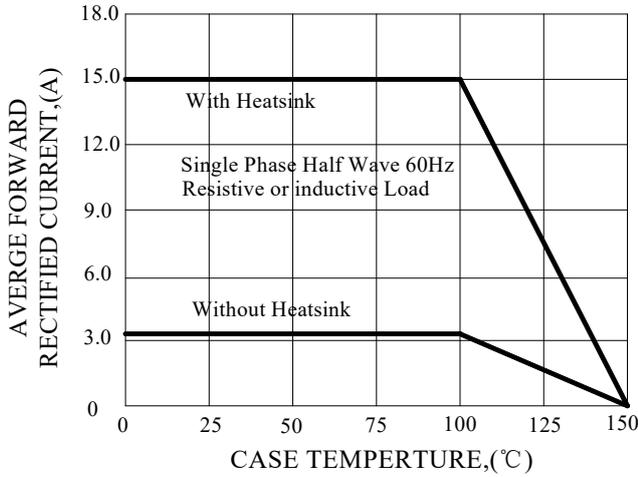


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

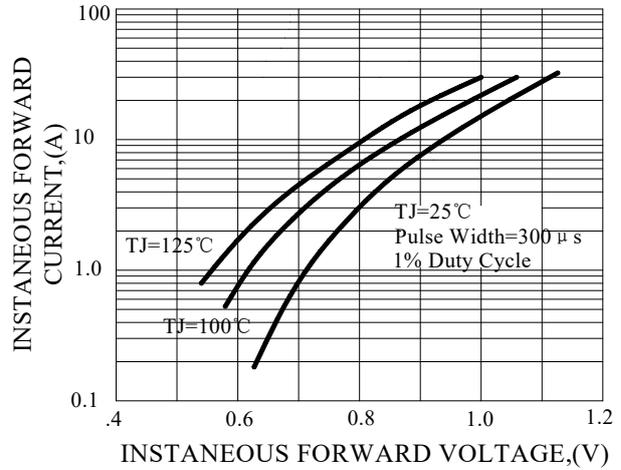


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

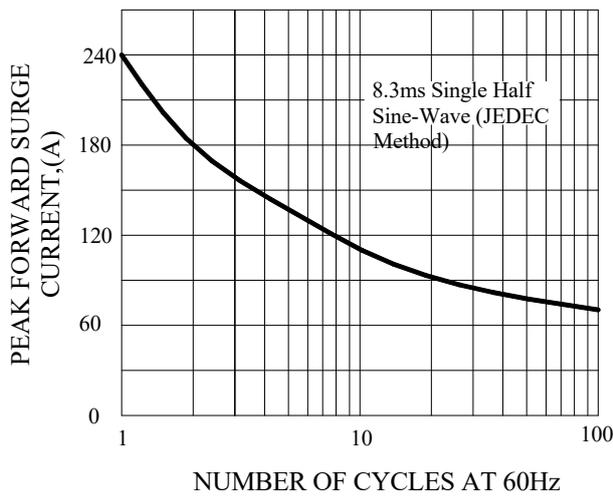


FIG.4-TYPIAL JUNCTION CAPACITANCE

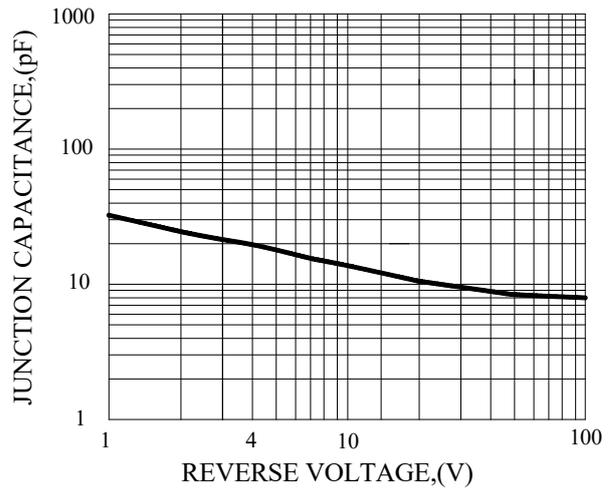


FIG.5-TYPICAL REVERSE CHARACTERISTICS

