GBJ25005 THRU GBJ2510

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HORNBY ELECTRONIC

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **25.0 AMPERE**

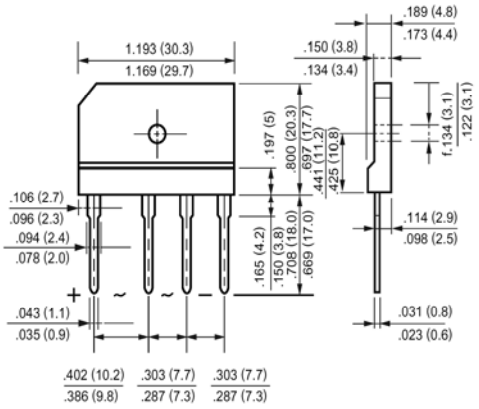
FEATURES

· Glass passivated chip junction
· Ideal for printed circuit board
· Plastic material has Underwriters Laboratory Flammability Classification 94V-0
· Reliable low cost construction
· High surge current capability

MECHANICAL DATA

Case: Molded plastic, GBJ
Epoxy: UL 94V-O rate flame retardant
Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
Mounting position: Any
Weight: 0.23ounce, 6.6gram

GBJ



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

	Symbols	*GBJ25005*	*GBJ2501*	*GBJ2502*	*GBJ2504*	*GBJ2506*	*GBJ2508*	*GBJ2510*	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 Rectified Current with Heatsink at T_C=100℃	$I_{(AV)}$	25.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300							**Amp**
Maximum Forward Voltage Drop per Element at 12.5A DC and 25℃	V_F	1.05							**Volts**
Maximum Reverse Current at T_A=25℃	I_R	10.0							**uAmp**
at Rated DC Blocking Voltage T_A=125℃		500							
Typical Junction Capacitance (Note 1)	C_J	85							**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	0.6							**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance fromn Junction to Case with Device Mounted on 300mm x 300mm x 1.6mmCu Plate Heatsink.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

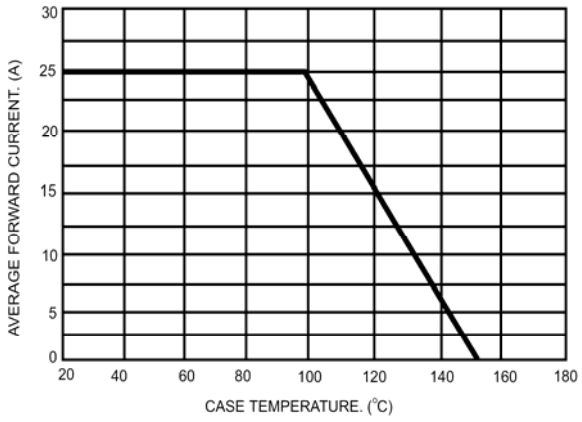

FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

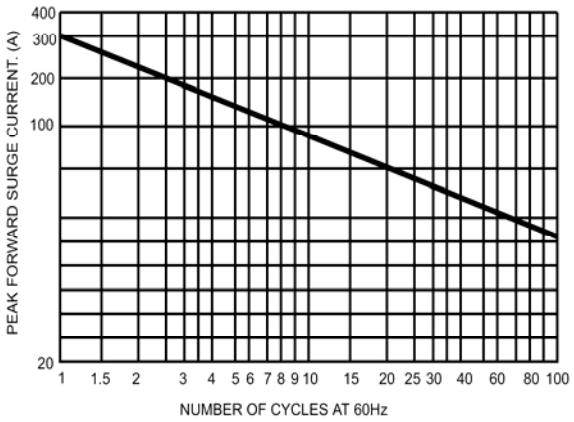

FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

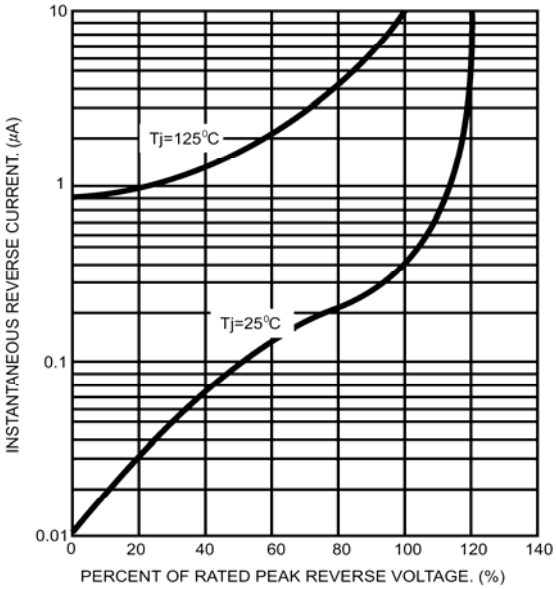

FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT