GBJ50005(H) THRU GBJ5010(H)

SEMICONDUCTOR

SINGLE PHASE 50.0 AMP GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage:50 to 1000 Volts

Forward Current: 50.0 A

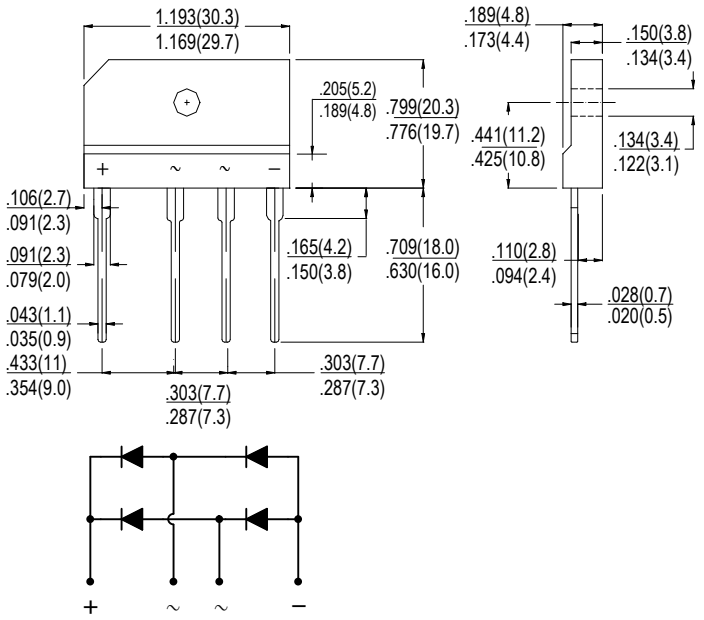
Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: Molded plastic, GBJ
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version

GBJ



dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

	SYMBOL	GBJ 50005(H)	GBJ 5001(H)	GBJ 5002(H)	GBJ 5004(H)	GBJ 5006(H)	GBJ 5008(H)	GBJ 5010(H)	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 2)@T_C=90℃	IF(AV)	50.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	450							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	840.375							A^2s
Forward Voltage per element @IF=25A	V_{FM}	1.1							V
Peak Reverse Current @T_A=25℃ At Rated DC Blocking Voltage @T_A=125℃	I_R	10 500							uA
Typical Junction Capacitance per leg	C_J	75							pF
Between junction and ambient, Without heatsink	$R_{\theta JA}$	22							℃/W
Between junction and case, With heatsink	$R_{\theta JC}$	0.8							
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150							℃

Note:1. "H": Halogen Free.

2. Unit case mounted on aluminum piate heatsink.

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Fig. 1 Output Current Derating Curve

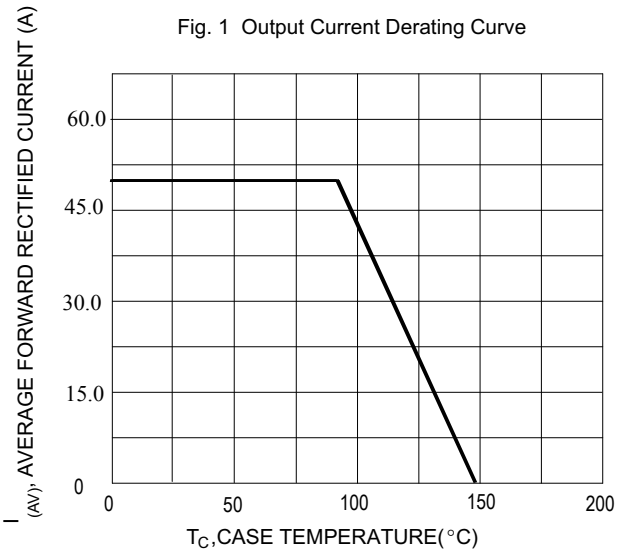

Fig. 2 Typical Forward Characteristics (per leg)

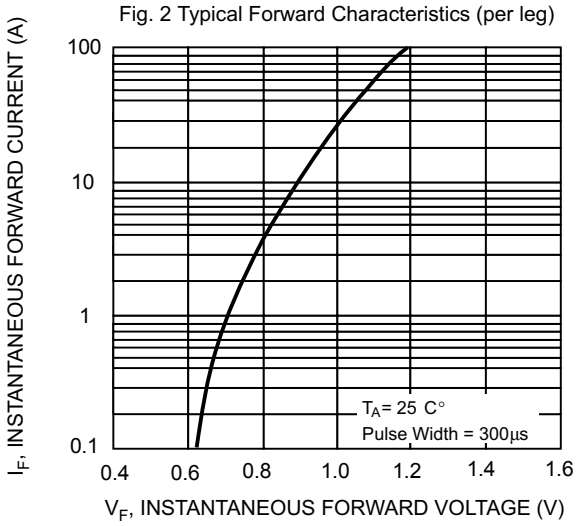

Fig. 3 Maximum Peak Forward Surge Current (per leg)

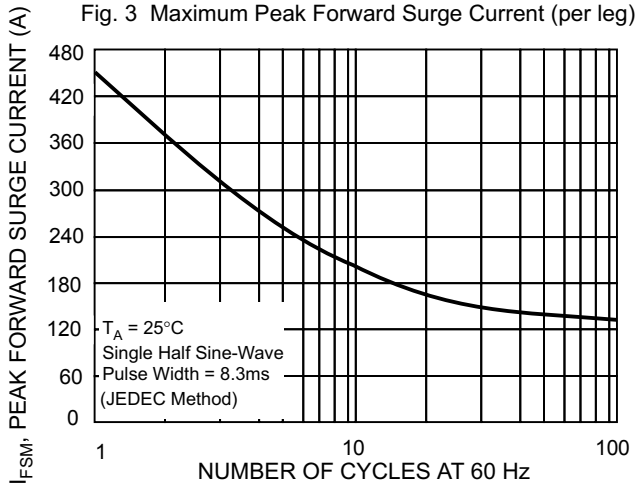

Fig. 4 Typical Junction Capacitance

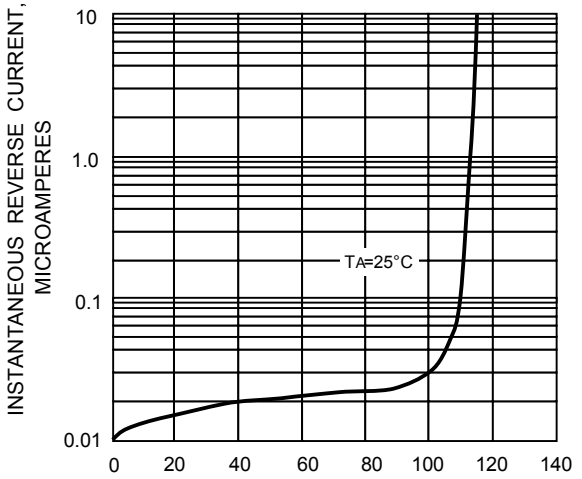

FIG.5 TYPICAL REVERSE CHARACTERISTICS