Single Phase Glass Passivated Bridge Rectifiers

Reverse Voltage: 50V to 1000V
Forward Current: 25 Amp

Features

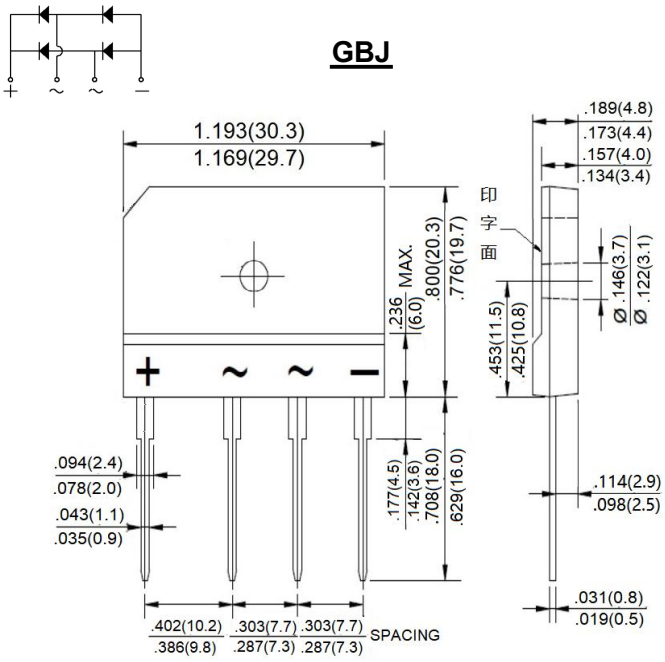
- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- Solder dip 260℃ max. 10 s, per JESD 22-B106

Mechanical Data

- **Package**: GBJ
  Molding compound meets UL 94 V-0 flammability rating
- **Terminals**: Matte tin plated leads,
  solderable per MIL-STD-750, Method 2026
- **Polarity**: Symbol marking on body

Typical Applications

General purpose use in AC/DC bridge full wave rectification for monitor, TV, printer, switching mode power supply,adapter, audio equipment, and home appliances applications.



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics(Ta=25℃ Unless otherwise specified)

Parameter&Test Conditions		SYM.	GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	Unit
Device marking code			GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS 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 Output Rectified Current (FIG.1)	With heatsink Tc =100℃(Note 2)	$I_{O(AV)}$	25.0							A
	Without heatsink Ta =40℃(Note 1)		4.5							
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load		I_{FSM}	350							A
A.C.50HZ;r.m.s.;1min		Visol	2500							V
Mounting Torque (Recommended torque:0.5 N.m)		TOR	0.8							N.m
Operating junction range		T_j	-55 to+150							℃
Storage temperature range		T_{STG}	-55 to+150							℃

Thermal Characteristics(Ta=25℃ Unless otherwise specified)

Parameter&Test Conditions	SYM.	GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	Unit
Maximum Thermal Resistance per Leg, Junction To Ambient (Note 1)	$R_{\theta JA}$	22							℃/W
Maximum Thermal Resistance per Leg, Junction To Case (Note 2)	$R_{\theta JC}$	1							℃/W

Electrical Characteristics(Ta=25℃ Unless otherwise specified)

Parameter&Test Conditions		SYM.	GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	Unit
Maximum Instantaneous Forward Voltage per diode	IF=12.5A	V_{FM}	1.10							V
Maximum DC reverse current at rated DC blocking voltage per diode	TA = 25℃	I_R	5							μA
	TA = 125℃		300							

Notes:
1. Junction to ambient without heatsink.
2. Junction to case with heatsink.

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

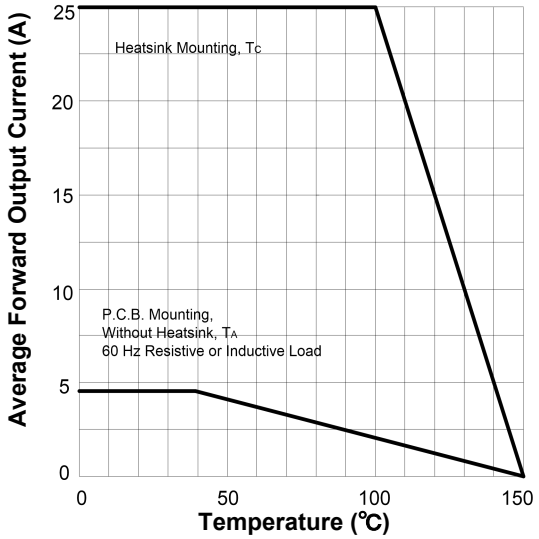


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode

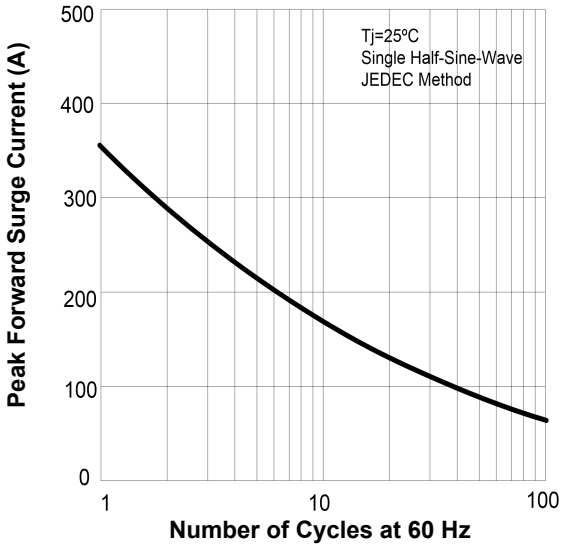


FIG. 3- TYPICAL FORWARD VOLTAGE

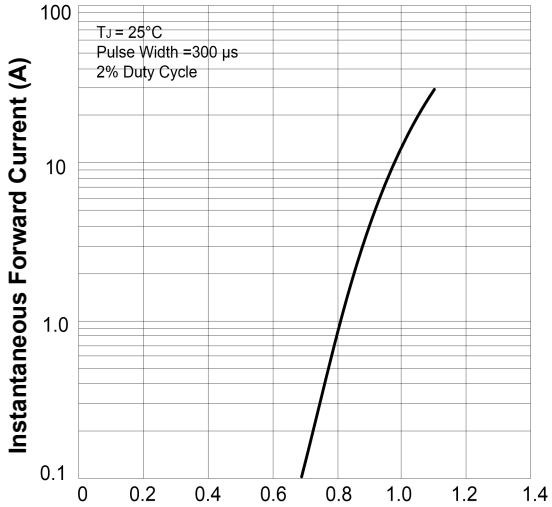
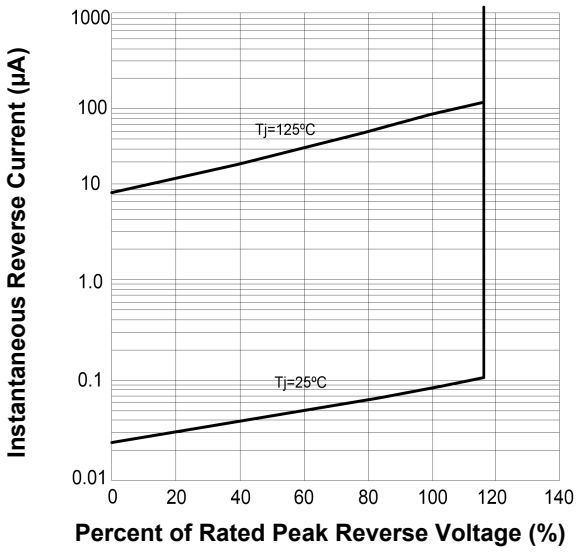


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.

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