Single Phase Glass Passivated Bridge Rectifiers

Reverse Voltage: 1600V
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

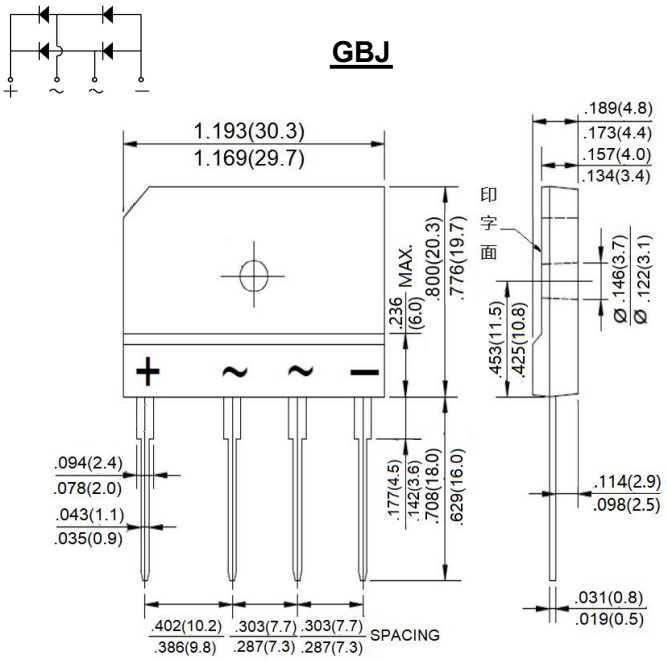
Mechanical Data

- **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.

GBJ



Package Outline Dimensions in Inches (Millimeters)

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

Parameter&Test Conditions		SYM.	GBJ2516	Unit
Device marking code			GBJ2516	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	1600	V
Maximum RMS Voltage		V_{RMS}	1120	V
Maximum DC Blocking Voltage		V_{DC}	1600	V
Maximum Average Forward Output Rectified Current (FIG.1)	With heatsink Tc =95℃(Note 2)	$I_{O(AV)}$	25.0	A
	Without heatsink Ta =25℃(Note 1)		3.5	
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.	GBJ2516	Unit
Maximum Thermal Resistance per Leg, Junction To Ambient (Note 1)	$R_{\theta JA}$	20	℃/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.	GBJ2516	Unit
Maximum Instantaneous Forward Voltage per diode	IF=12.5A	V_{FM}	1.20	V
Maximum DC reverse current at rated DC blocking voltage per diode	TA = 25℃	I_R	5	μA
	TA = 125℃		500	

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

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

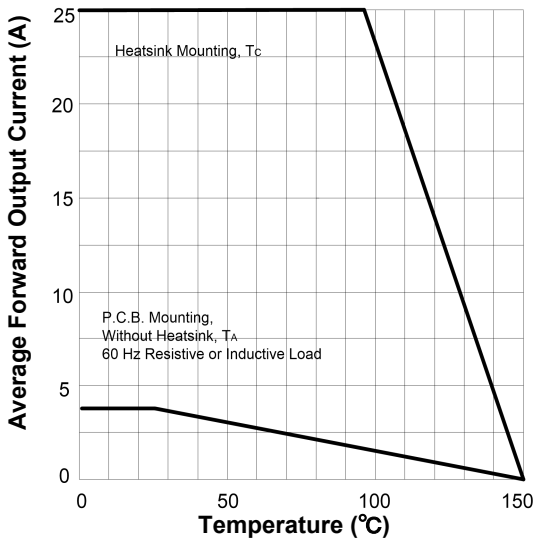


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode

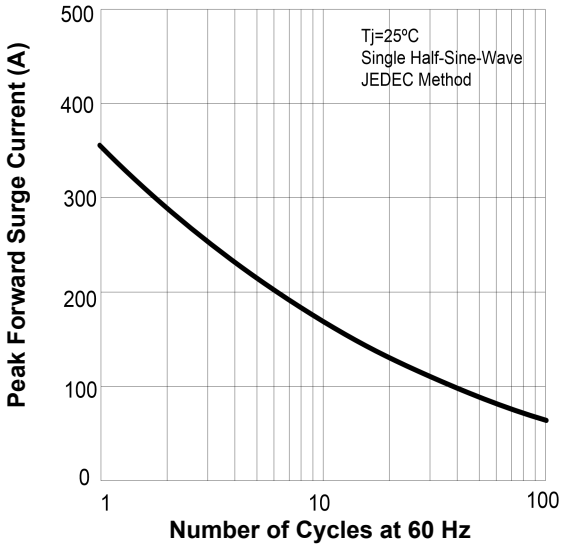


FIG. 3- TYPICAL FORWARD VOLTAGE

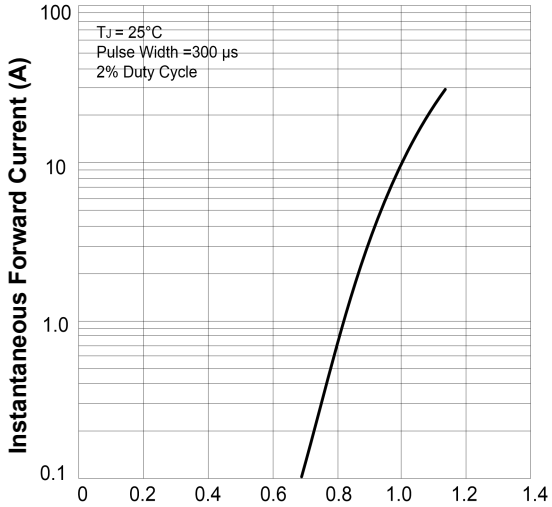
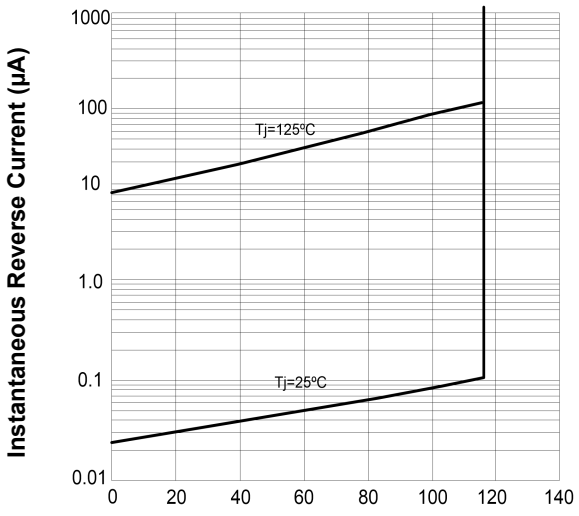


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.

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