

Single Phase Glass Passivated Bridge Rectifiers

Reverse Voltage: 1600V
Forward Current: 35 Amp

Features

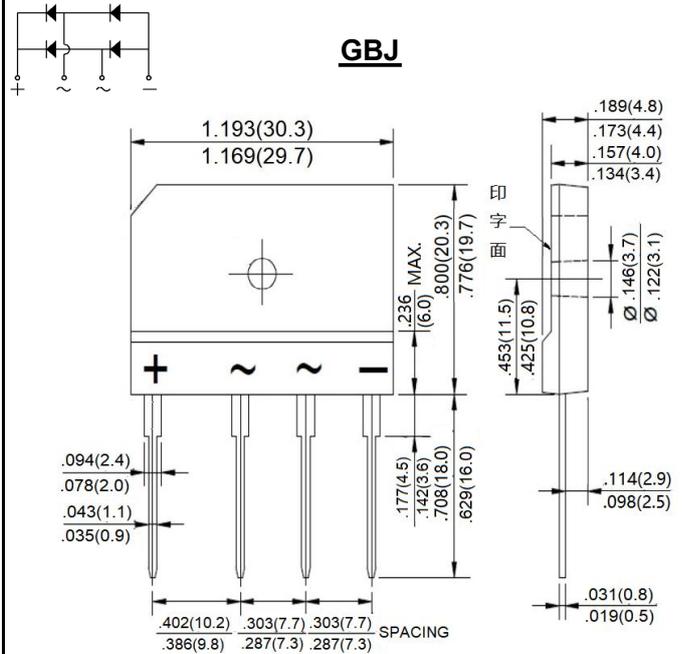
- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- Solder dip 260°C max. 10 s, per JESD 22-B106

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°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	GBJ3516	Unit
Device marking code		GBJ3516	
Maximum Recurrent Peak Reverse Voltage	VRRM	1600	V
Maximum RMS Voltage	VRMS	1120	V
Maximum DC Blocking Voltage	VDC	1600	V
Maximum Average Forward Output Rectified Current (FIG.1)	With heatsink Tc = 80°C (Note 2)	35.0	A
	Without heatsink Ta = 25°C (Note 1)	3.5	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load	IFSM	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	Tj	-55 to+150	°C
Storage temperature range	TSTG	-55 to+150	°C

Thermal Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	GBJ3516	Unit
Maximum Thermal Resistance per Leg, Junction To Ambient (Note 1)	RθJA	20	°C/W
Maximum Thermal Resistance per Leg, Junction To Case (Note 2)	RθJC	1	°C/W

Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter&Test Conditions	SYM.	GBJ3516	Unit
Maximum Instantaneous Forward Voltage per diode	IF=17.5A	VFM	1.10
Maximum DC reverse current at rated DC blocking voltage per diode	TA = 25°C	IR	5
	TA = 125°C		500

Notes:

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

Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

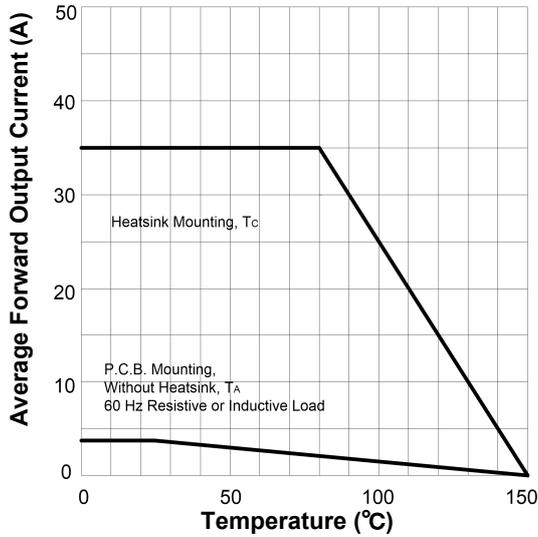


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode

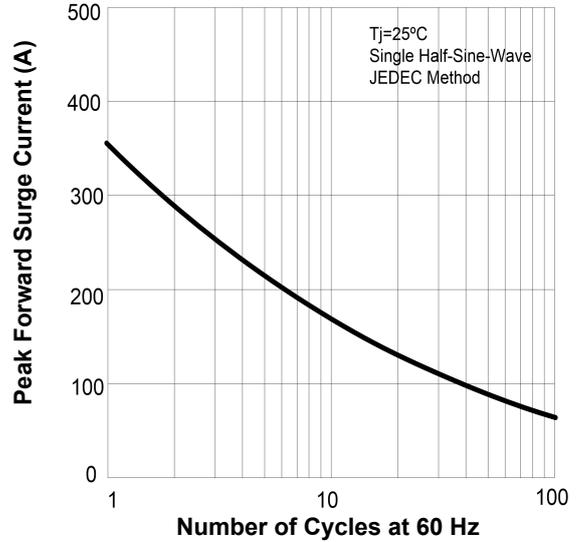


FIG. 3- TYPICAL FORWARD VOLTAGE

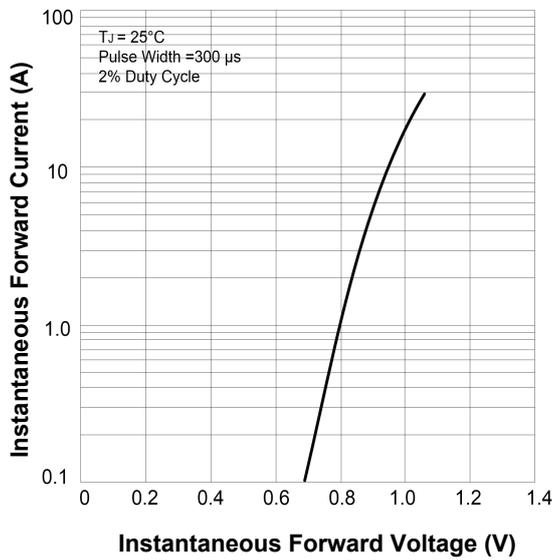
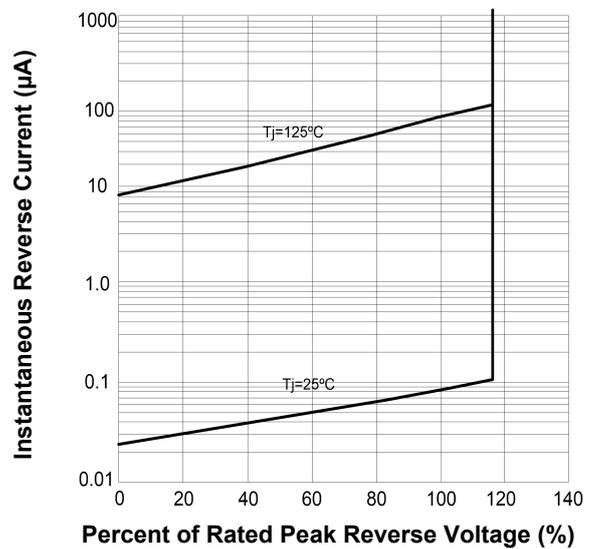


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.



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