

Low VF Glass Passivated Bridge Rectifiers

Reverse Voltage - 600 Volts
Forward Current - 25 Amperes

Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability

Mechanical Data

- Polarity: Symbol marked on body
- Mounting position: Any

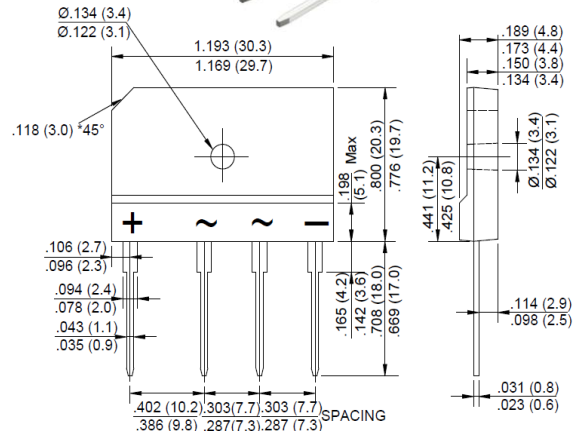
Applications

- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

GBJ



RoHS
COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	GBJ2506U	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	600	V
Maximum RMS Voltage	V _{RMS}	420	V
Maximum DC Blocking Voltage	V _{DC}	600	V
Maximum Average Forward (with heatsink Note 2) Rectified Current @ T _c =100°C (without heatsink)	I _(AV)	25.0 4.2	A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	350	A
I ² t Rating for Fusing (t<8.3mS)	I ² t	508	A ² s
Peak Forward Voltage per Diode at 12.5A DC	V _F	0.9	V
Maximum DC Reverse Current at Rated @ T _J =25°C	I _R	5.0	μA
DC Blocking Voltage per Diode @ T _J =125°C		120	
Typical Junction Capacitance per Diode (Note1)	C _J	85	pF
Typical Thermal Resistance to Ambient (Note2)	R _{θJA}	4.5	°C/W
Typical Thermal Resistance to case (Note2)	R _{θJC}	0.6	
Typical Thermal Resistance to lead (Note2)	R _{θJL}	1.5	
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

- Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
 2. Device mounted on 300mm*300mm*1.6mm Cu plate heatsink.
 3. The typical data above is for reference only

Rating and Characteristic Curves

GBJ2506U

Fig. 1 - Forward Current Derating Curve

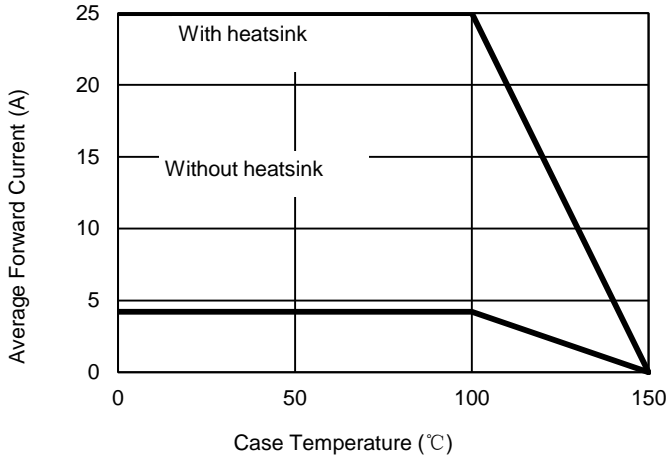


Fig. 2 - Maximum Non-Repetitive Surge Current

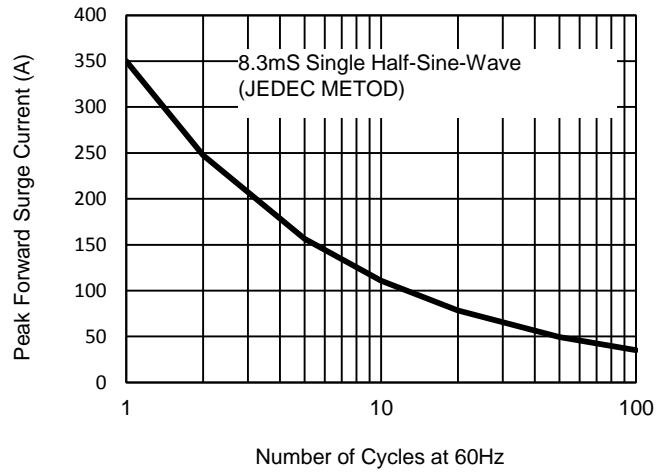


Fig. 3 - Typical Reverse Characteristics

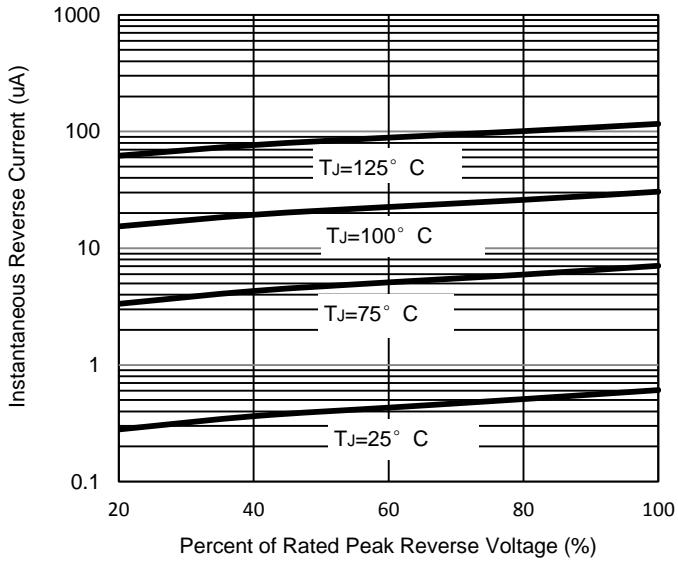


Fig. 4 - Typical Forward Characteristics

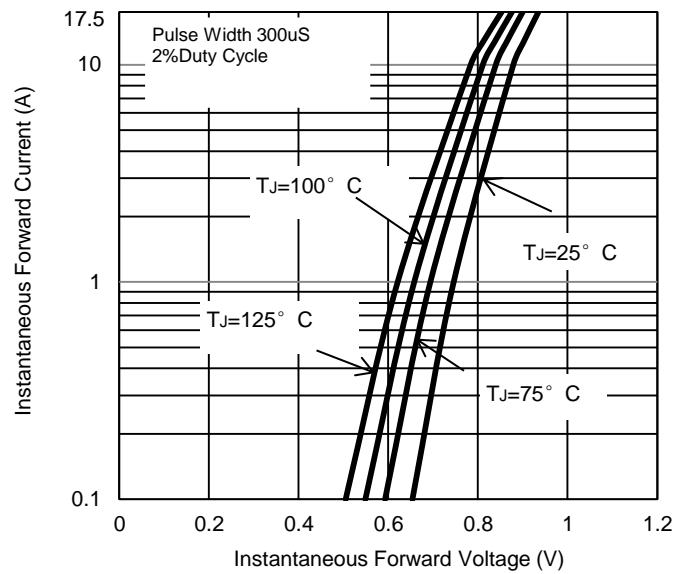
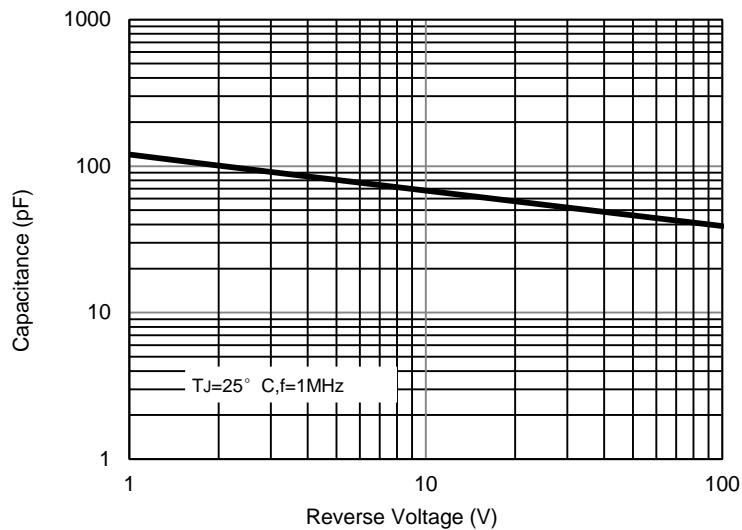


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.

