



Low VF Glass Passivated Bridge Rectifiers

Reverse Voltage - 600 Volts

Forward Current - 10 Amperes

Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- Meet UL flammability classification 94V-0

Mechanical Data

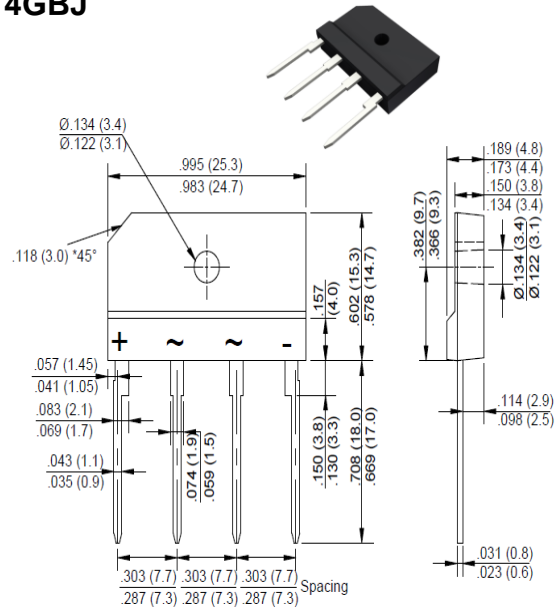
- Polarity: Symbol marked on body
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

Applications

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

4GBJ



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	4GBJ1006L	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 @ $T_c=100^\circ\text{C}$ (without heatsink)	$I_{(AV)}$	10.0 3.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	210	A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	183	A^2s
Peak Forward Voltage per Diode at 5A DC	V_F	0.92	V
Maximum DC Reverse Current at Rated @ $T_J=25^\circ\text{C}$	I_R	5.0	μA
DC Blocking Voltage per Diode @ $T_J=125^\circ\text{C}$		127	
Typical Junction Capacitance per Diode (Note1)	C_J	55	pF
Typical Thermal Resistance to Ambient (without heatsink)	$R_{\theta JA}$	24	$^\circ\text{C}/\text{W}$
Typical Thermal Resistance to case (with heatsink (Note2))	$R_{\theta JC}$	1.4	$^\circ\text{C}/\text{W}$
Typical Thermal Resistance to lead (without heatsink)	$R_{\theta JL}$	3	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

Notes: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on 150mm*150mm*1.6mm Cu plate heatsink.

3. The typical data above is for reference only



Fig. 1 - Forward Current Derating Curve

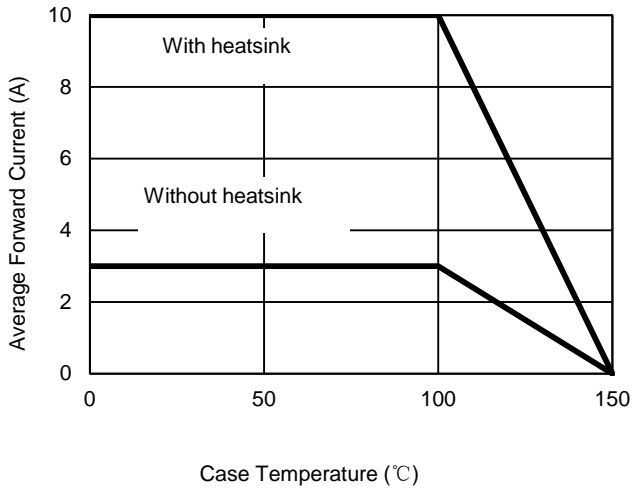


Fig. 2 - Maximum Non-Repetitive Surge Current

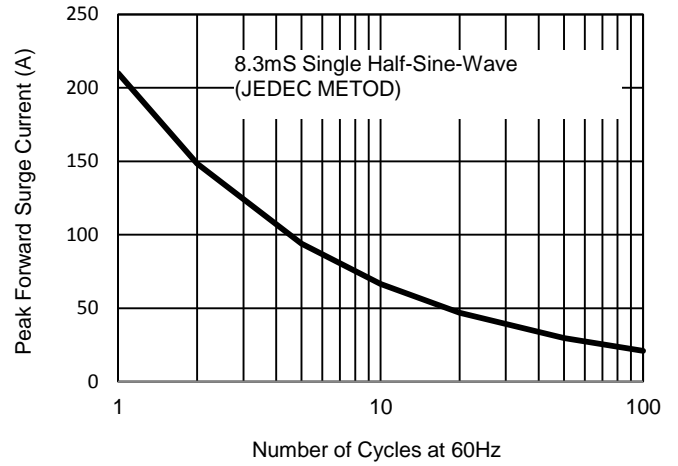


Fig. 3 - Typical Reverse Characteristics

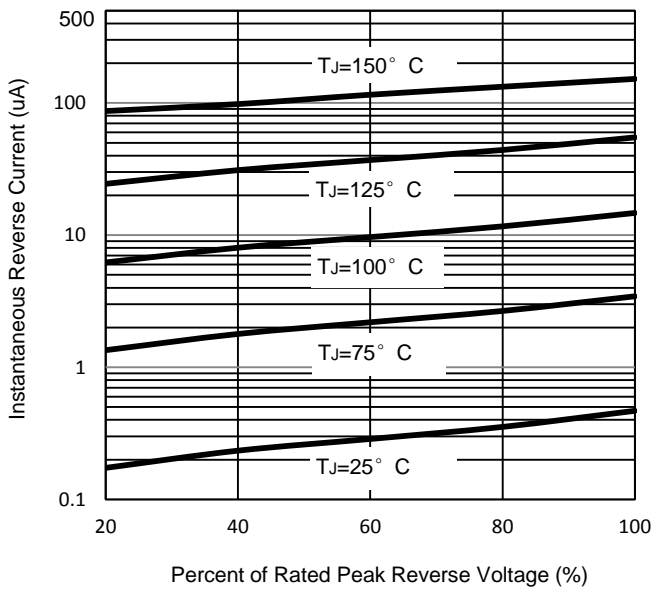


Fig. 4 - Typical Forward Characteristics

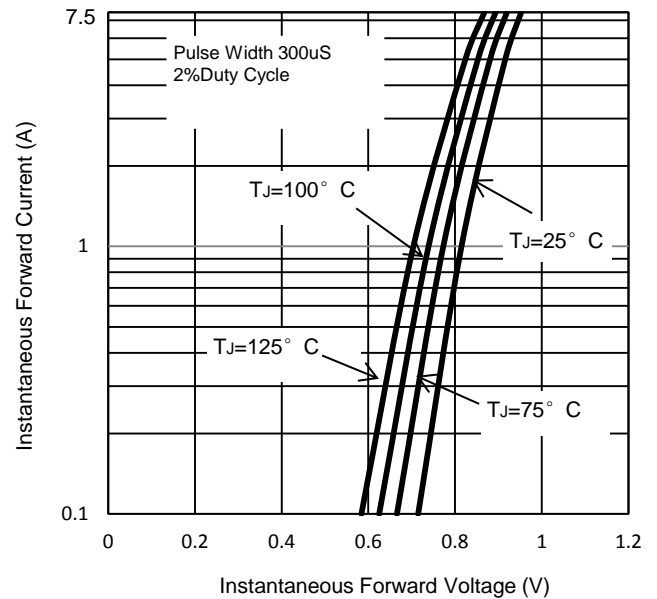
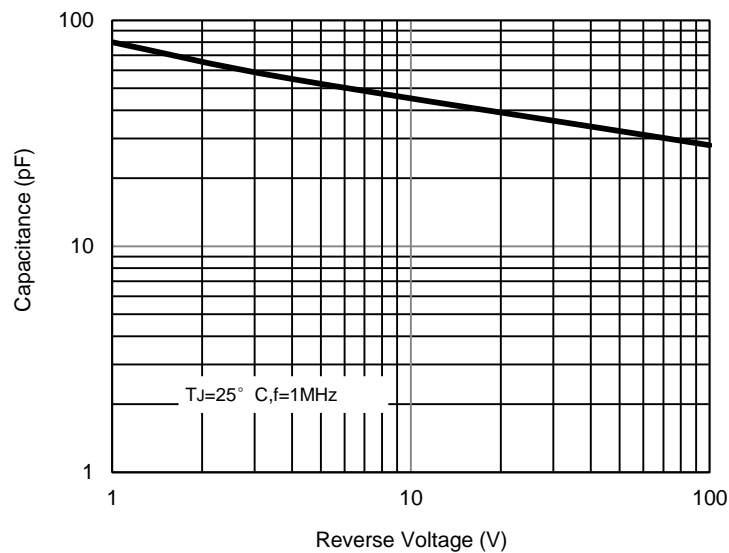


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.



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