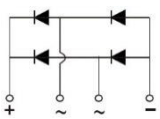
Glass Passivated Bridge Rectifier

GBJ25005 THRU GBJ2510

Voltage Range 50 to 1000 V
Current 25 Ampere

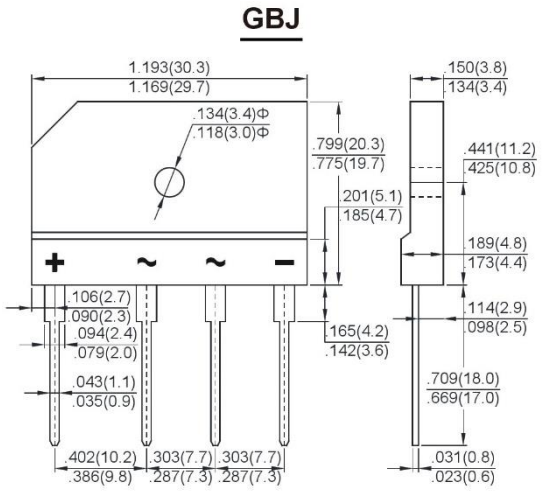
FEATURES

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



MECHANICAL DATA

- Case: Molded plastic, GBJ
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-202, method 208
- Polarity: As marked on body



Dimensions in inches and (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%.

Parameter	Symbol	GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	Unit
Maximum repetitive 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 rectified current @T_C=100°C (with heatsink Note1)	$I_{F(AV)}$	25							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	350							A
Maximum instantaneous forward drop per diode @ IF=12.5A	V_F	1.0							V
Maximum DC reverse current @T_J=25°C at rated DC blocking voltage @T_J=125°C	I_R	10 500							μA
Typical junction capacitance per diode (Note2)	C_J	85							pF
Typical thermal resistance from junction to ambient (Note 1)	$R_{\theta JA}$	4.5							°C/W
Typical thermal resistance from junction to lead (Note 1)	$R_{\theta JL}$	1.5							°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-50 to +150							°C

NOTES : (1) Device mounted on 300mm×300mm×1.6mm Cu plate heatsink.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

RATINGS AND CHARACTERISTICS CURVES GBJ25005 THRU GBJ2510

Fig.1 - Forward Current Derating Curve

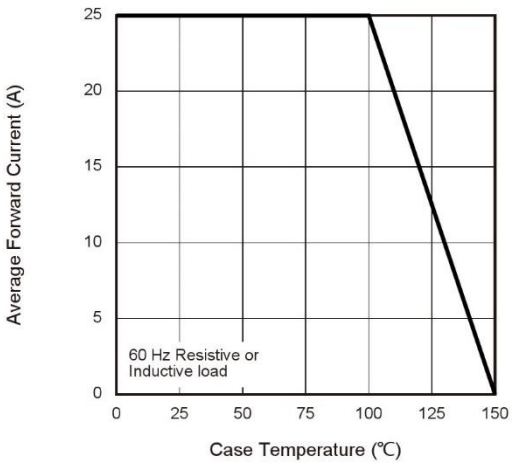


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

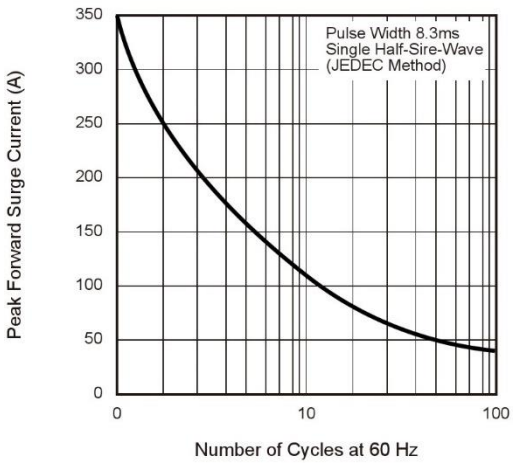


Fig.3 - Typical Instantaneous Forward Characteristics

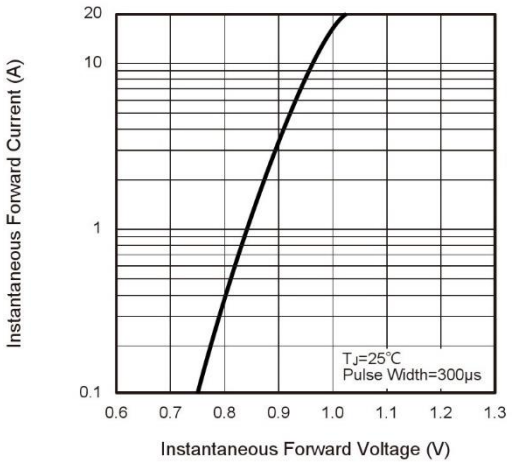


Fig.4 - Typical Reverse Leakage Characteristics

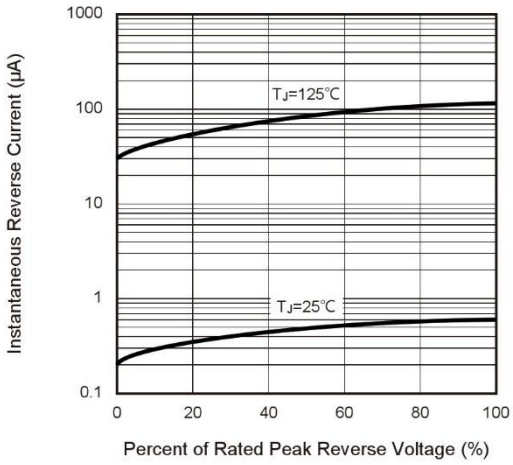


Fig.5 - Typical Junction Capacitance