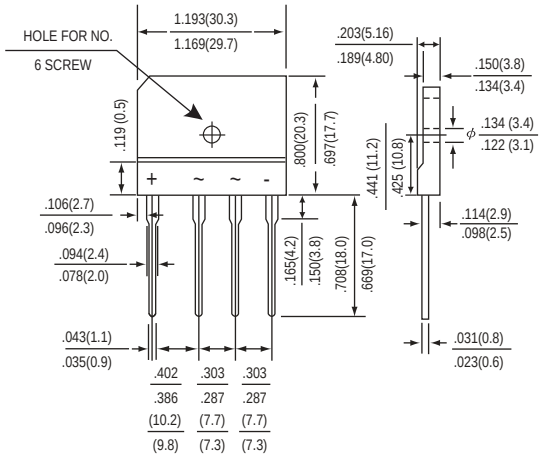
GBJ25A THRU GBJ25M

SINTERED GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 Volts *Forward Current - 25.0 Amperes*

PATENTED

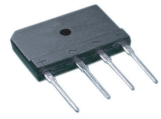
GBJ



*Dimensions in inches and (millimeters)

SuperBridge with GPRC inside

SUPEREX II™



FEATURES

* Internal Constructure with GPRC (Glass Passivated Rectifier Chip) inside
* High Case Dielectric Strength of 1500VRMS
* Low Reverse Leakage Current
* High Surge Current Capability
* Ideal for Printed Circuit Board Applications
* Plastic Material-UL Recognition Flammability Classification 94V-0

MECHANICAL DATA

Case : GBJ molded plastic
Terminals : Plated Leads, solderable per MIL-STD-750, Method 2026
Polarity : Molded on body
Mounting : Through Hole for # 6 screw
Mounting torque : 5.0 in-lbs maximum
Weight : 6.6 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	*SYMBOLS*	***GBJ25A***	***GBJ25B***	***GBJ25D***	***GBJ25G***	***GBJ25J***	***GBJ25K***	***GBJ25M***	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward (with heatsink Note 2) rectified current at T_C=100°C	$I_{(AV)}$	25							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	350							Amps
Maximum instantaneous forward voltage @ I_F=12.5 A	V_F	1.05							Volts
Maximum DC reverse current @T_C=25°C at rated DC blocking voltage @T_C=125°C	I_R	10 500							uA
I^2t rating for fusing (t < 8.3ms)	I^2t	510							A^2s
Typical junction capacitance per element (NOTE 1)	C_J	85							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JC}$	0.6							K / W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +175							°C

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

RATINGS AND CHARACTERISTIC CURVES GBJ25A THRU GBJ25M

FIG.1 - FORWARD CURRENT DERATING CURVE

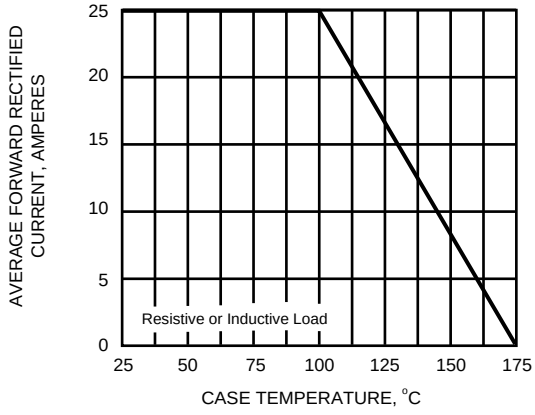


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

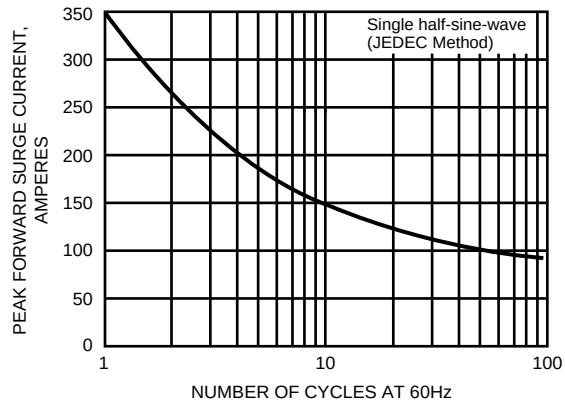


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

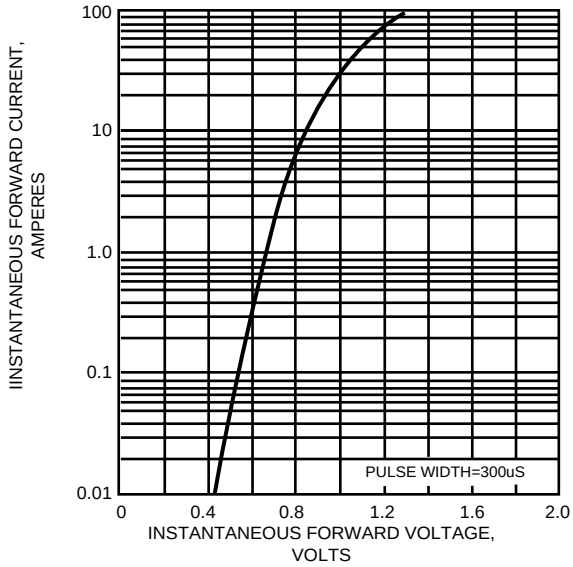


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

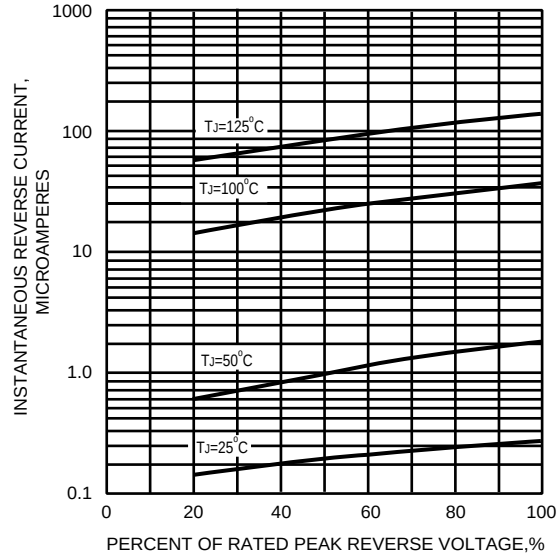


FIG.5 - TYPICAL JUNCTION CAPACITANCE