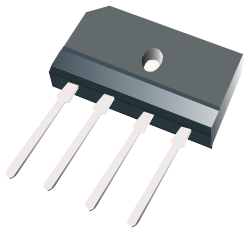
Glass Passivated Bridge Rectifiers

GBJ10005-G Thru. GBJ1010-G

Reverse Voltage: 50 to 1000V
Forward Current: 10 A
RoHS Device



Features

-Rating to 1000V PRV.

-Ideal for printed circuit board.

-Low forward voltage drop.

-High current capability.

-UL recognized file # E349301

Mechanical Data

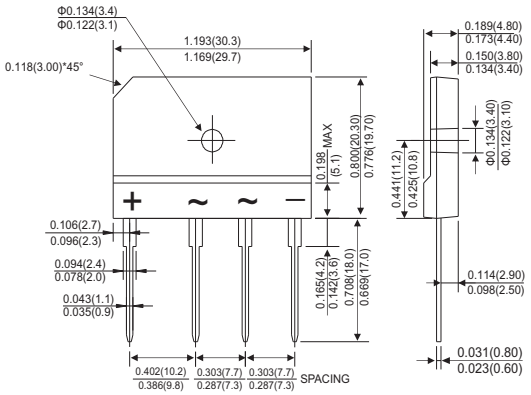
-Epoxy: UL 94V-0 rate flame retardant.

-Case: Molded plastic, GBJ

-Mounting position: Any.

-Weight: 6.81grams.

GBJ



Dimensions in inches and (millimeter)

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 10005-G	GBJ 1001-G	GBJ 1002-G	GBJ 1004-G	GBJ 1006-G	GBJ 1008-G	GBJ 1010-G	Unit
Maximum recurrent 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 (with heatsink Note2) rectified current @Tc=110°C (without heatsink)	$I_{(AV)}$	10 3.5							A
Peak forward surge current , 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	220							A
Maximum forward voltage at 5.0A DC	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
I^2t rating for fusing (t<8.3ms)	I^2t	200.86							A^2s
Typical junction capacitance per element (Note 1)	C_J	55							pF
Typical thermal resistance	$R_{\theta JC}$	1.4							°C/W
Operating temperature range	T_J	-55 to +150							°C
Storage temperature range	T_{STG}	-55 to +150							°C

Notes:
1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 150mm*150mm*1.6mm Cu plate heatsink.

Rating and Characteristics Curves (GBJ10005-G Thru. GBJ1010-G)

Fig.1 - Forward Current Derating Curve

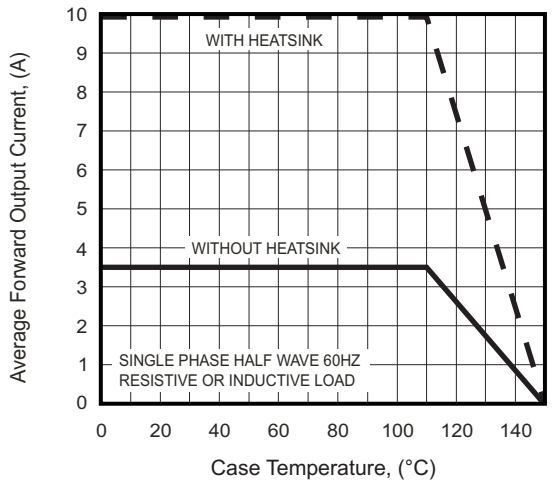


Fig.2 - Maximum Non-Repetitive Surge Current

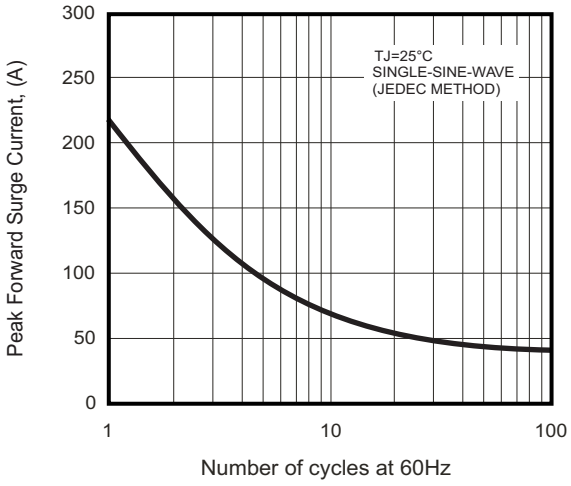


Fig.3 - Typical Junction Capacitance

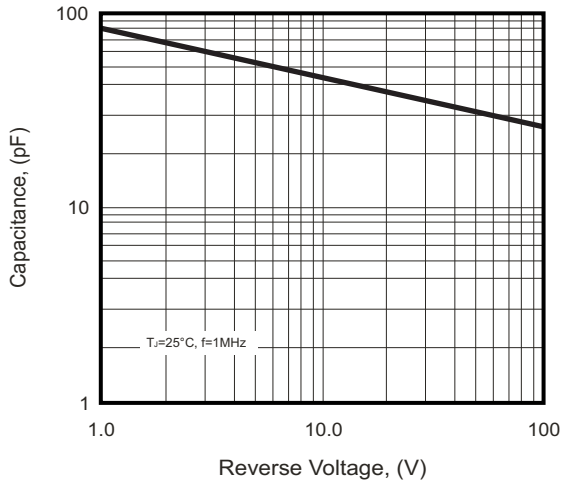


Fig.4 - Typical Forward Characteristics

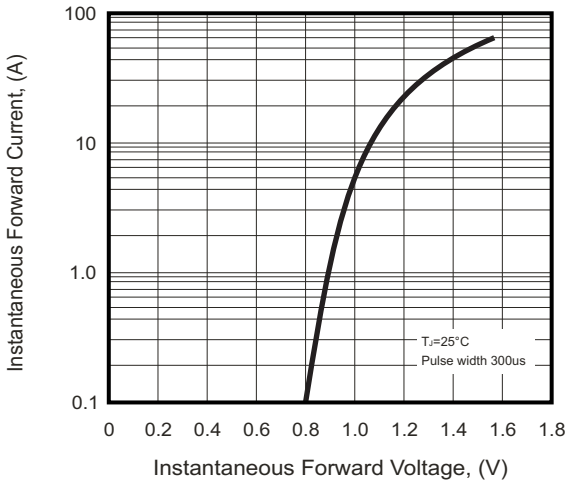
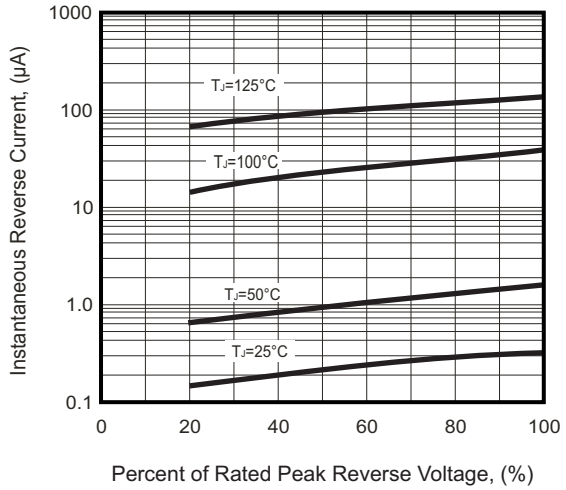


Fig.5 - Typical Reverse Characteristics



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