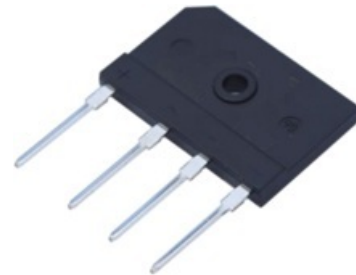


25A Single Phase Bridge Rectifier

Features

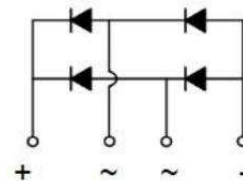
- Ideal for printed circuit boards
- High surge current capability
- Reverse Voltage : 50 to 1000V
- Forward Current : 25A
- High temperature soldering : 260°C/10s at terminals



GBJ

Applications

- Single phase rectifiers for power supplies
- Industrial automation equipment
- Input rectifiers for inverter



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate 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	$I_{F(AV)}$	with heatsink @ $T_C=100^\circ C$							A
		25.0							
		without heatsink @ $T_C=25^\circ C$							
		3.5							
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load(JEDEC method)	I_{FSM}	350							A
Maximum Instantaneous Forward Voltage @12.5A	V_F	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_A=25^\circ C$							μA
		10							
		$T_A=125^\circ C$							
		500							
Typical Thermal Resistance	$R_{\theta JC(1)}$	1.0							$^\circ C/W$
	$R_{\theta JA(2)}$	22							
Operating Junction and Storage Temperature Range	T_J, T_{STG}	(-55 to +150)							$^\circ C$

Notes:

1. Unit case mounted on aluminum plate heatsink
2. Units mounted on PCB without heatsink

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1 - Typical forward current derating curve

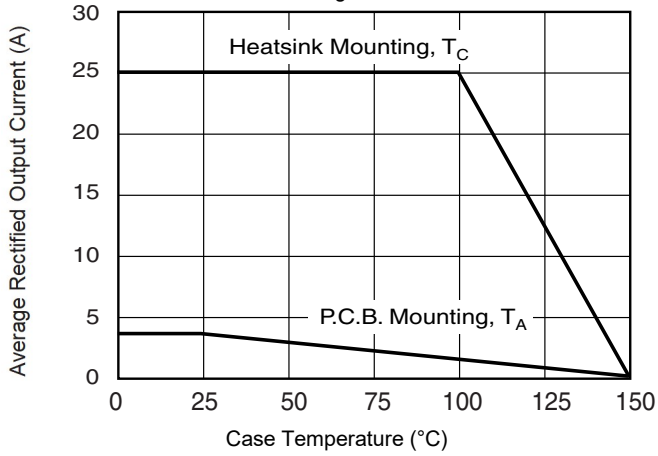


FIG.2 - Maximum Non-Repetitive Peak Forward Surge Current

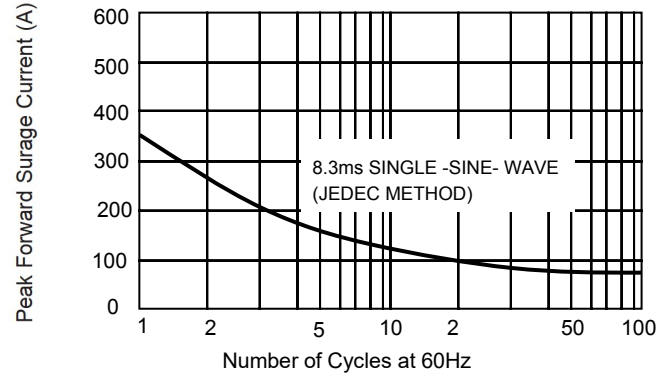


FIG.3 - Typical Junction Capacitance

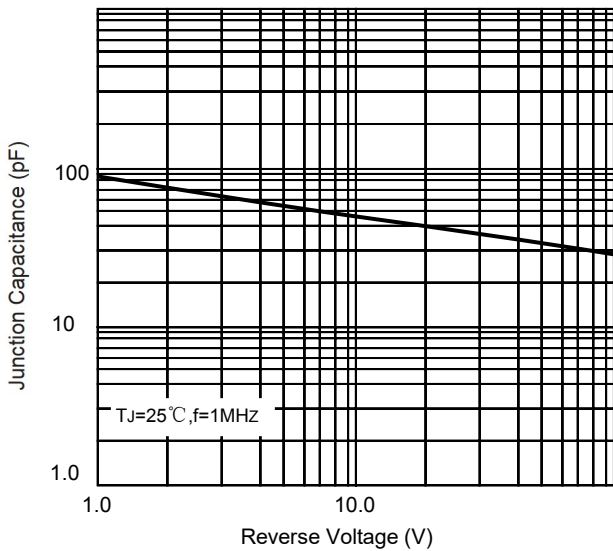


FIG.4 - Typical Instantaneous Forward Characteristics

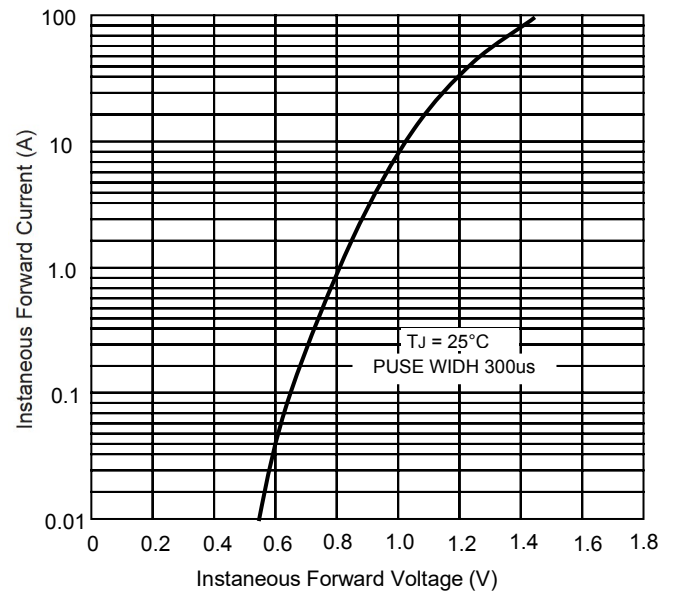
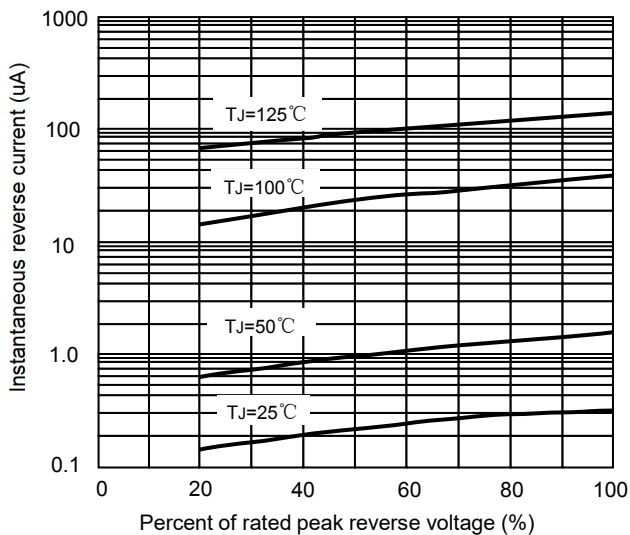
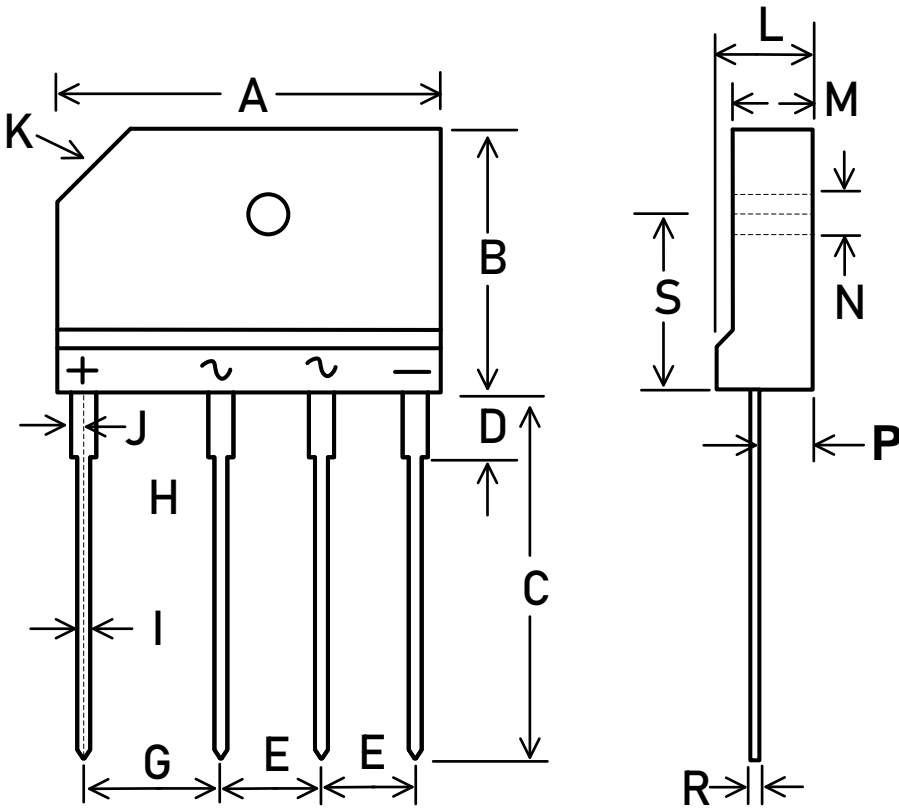


FIG.5 - Typical reverse Characteristics



Package Outlines (Dimensions in mm)

Plastic surface mounted package(GBJ)



Symbol	Millimeter	
	Min.	Max.
A	29.70	30.3
B	19.70	20.3
C	17.00	18.00
D	3.80	4.20
E	7.30	7.70
G	9.80	10.20
H	2.00	2.40
I	0.90	1.10
J	2.30	2.70
K	3.0x45°	
L	4.40	4.80
M	3.40	3.80
N	3.10	3.40
P	2.50	2.90
R	0.60	0.80
S	10.80	11.20

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