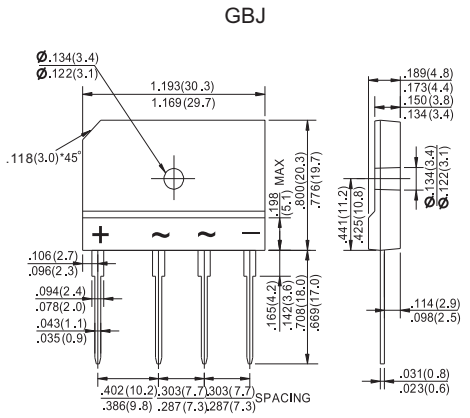
GBJ25005 THRU GBJ2510

25.0 Glass Passivated Single Phase Bridge Rectifiers-50-1000V

Features

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop,high current capability
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Glass passivated chip junction.
- Lead-free parts meet RoHS requirments.

Package outline



Dimensions in inches and (millimeters)

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, GBJ
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any

Maximum ratings and Electrical Characteristics (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Maximum average forward rectified current	with heatsink Note 1 @T_C=100°C without heatsink	$I_{F(AV)}$			25.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			300	A
Reverse current	V_R = V_{RRM} T_J = 25°C	I_R			10.0	μA
	V_R = V_{RRM} T_J = 125°C				500	
Rating for fusing	t < 8.3 ms	I^2t			510	A^2s
Typical Junction capacitance Per Element	Measured at 1.0MHz and applied reverse voltage of 4.0V DC	C_J		85		pF
Typical thermal resistance	Junction to case	$R_{\theta JC}$		0.6		°C/W
Storage temperature		T_{STG}	-65		+175	°C

Note: 1.Device mounted on 300mm*300mm*1.6mm Cu plate heatsink.

SYMBOLS	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	Operating temperature T_J, (°C)
GBJ25005	50	35	50	1.10	-55 to +150
GBJ2501	100	70	100		
GBJ2502	200	140	200		
GBJ2504	400	280	400		
GBJ2506	600	420	600		
GBJ2508	800	560	800		
GBJ2510	1000	700	1000		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@IF=12.5A

Rating and characteristic curves

FIG.1-FORWARD CURRENT DERATING CURVE

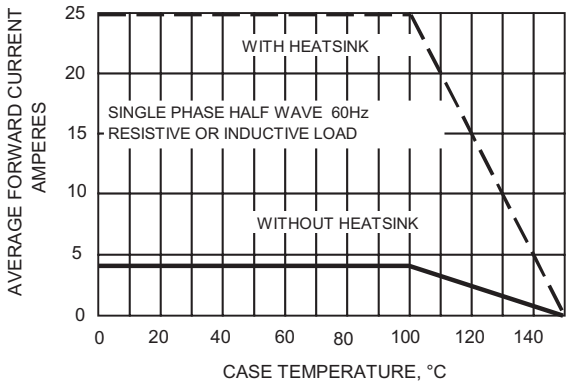


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

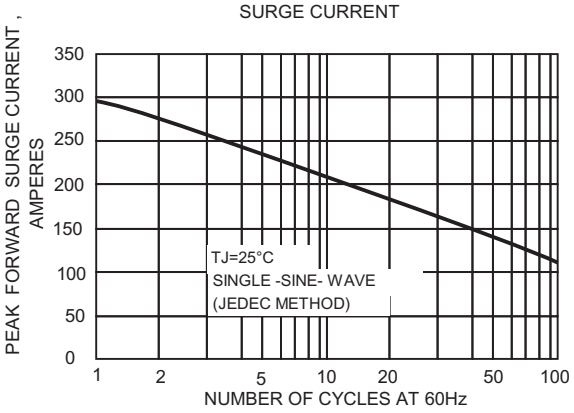


FIG.3-TYPICAL JUNCTION CAPACITANCE

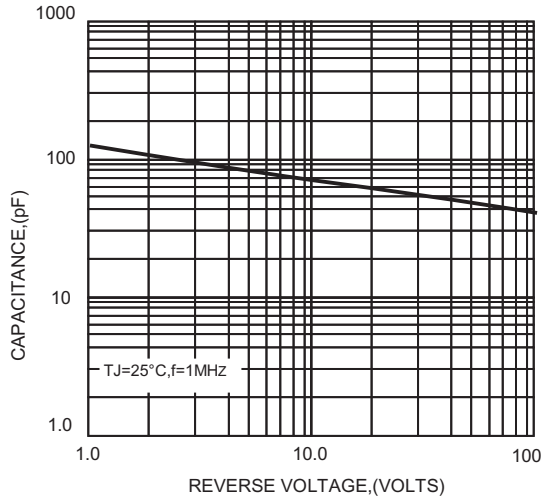


FIG.4-TYPICAL FORWARD CHARACTERISTICS

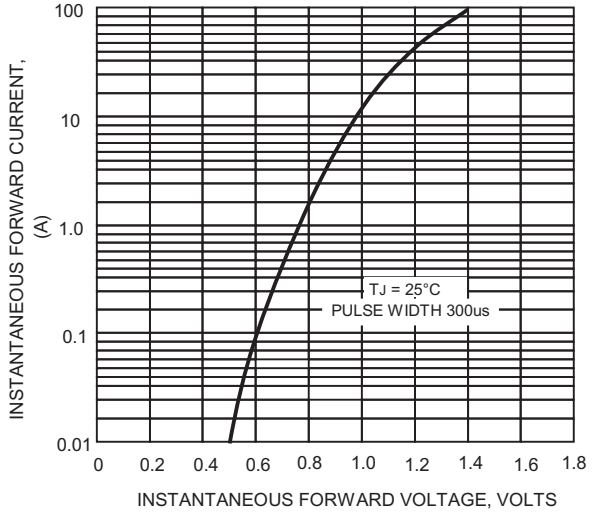
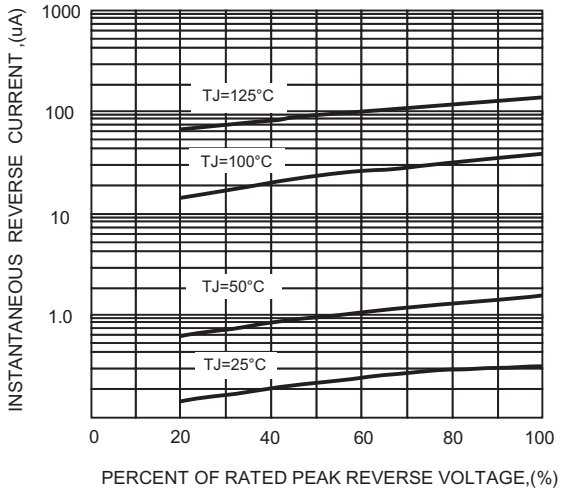


FIG.5-TYPICAL REVERSE CHARACTERISTICS



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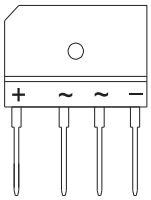
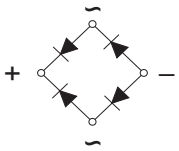
Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
GBJ25005	GBJ25005
GBJ2501	GBJ2501
GBJ2502	GBJ2502
GBJ2504	GBJ2504
GBJ2506	GBJ2506
GBJ2508	GBJ2508
GBJ2510	GBJ2510