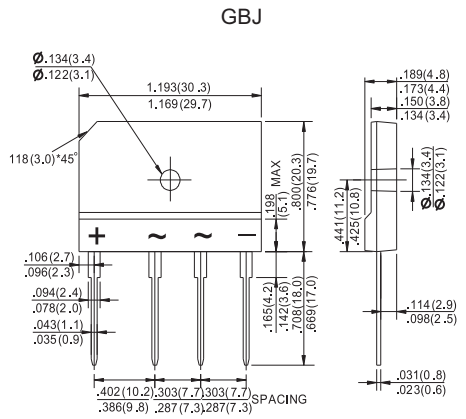
GBJ50005 THRU GBJ5010

50.0A 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.
- Suffix "-H" indicates Halogen free parts, ex. GBJ50005-H.

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	$I_{F(AV)}$			50.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			500	A
Reverse current	V_R = V_{RRM} T_J = 25°C	I_R			5.0	μA
	V_R = V_{RRM} T_J = 125°C				500	
Rating for fusing	t < 8.3 ms	I^2t			1037	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	$R_{\theta JC}$		1.0		°C/W
Storage temperature		T_{STG}	-65		+175	°C

Note: 1.Device mounted on 100mm*50mm*30mm 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)
GBJ50005	50	35	50	1.0	-55 to +150
GBJ5001	100	70	100		
GBJ5002	200	140	200		
GBJ5004	400	280	400		
GBJ5006	600	420	600		
GBJ5008	800	560	800		
GBJ5010	1000	700	1000		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@IF=25.0A

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Rating and characteristic curves (GBJ50005 THRU GBJ5010)

FIG.1 . Derating Curve For Output Rectified Current

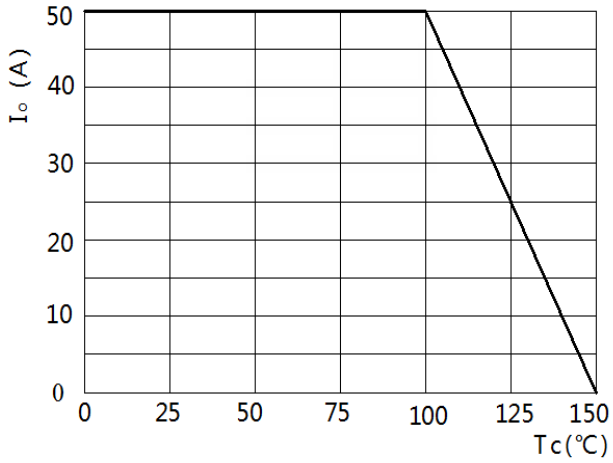


FIG.2 . Maximum Non-Repetitive Peak Orward Surge Current Per Bridge Element

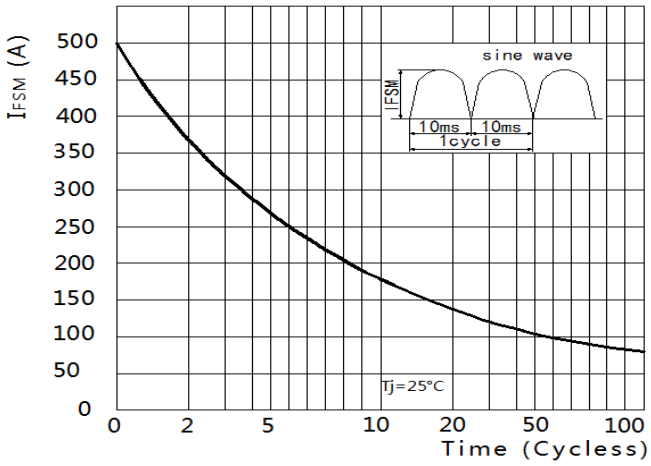


FIG3.Typical Reverse Characteristics Per Bridge Element

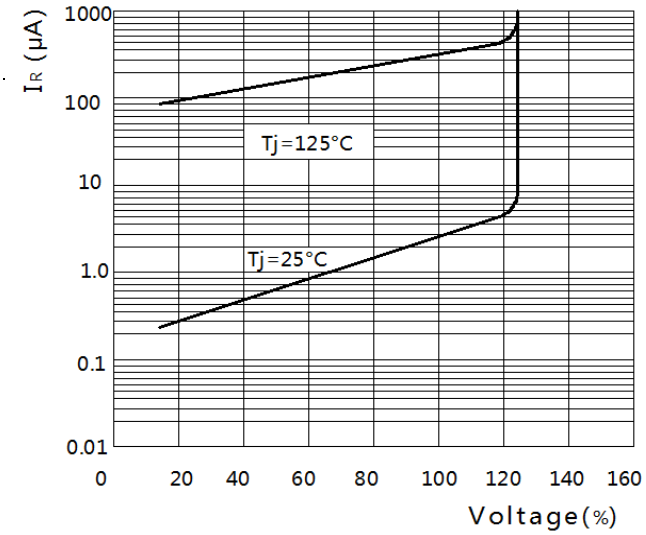
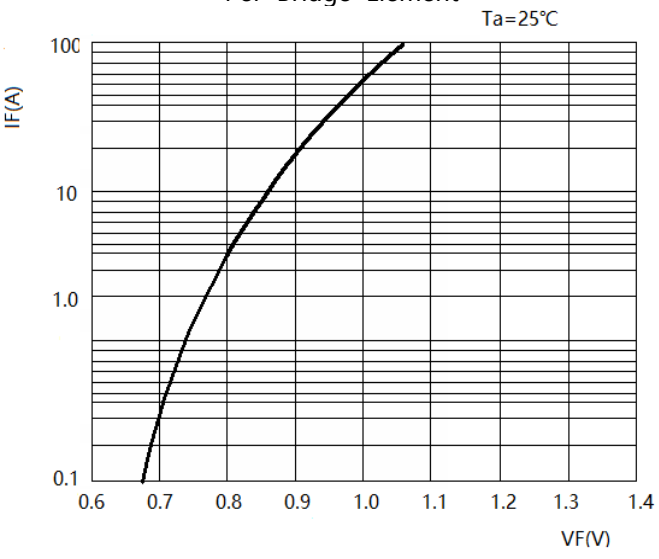


FIG4.Typical Forward Characteristics Per Bridge Element



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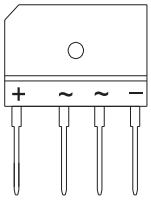
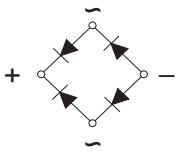
Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
GBJ50005	GBJ50005
GBJ5001	GBJ5001
GBJ5002	GBJ5002
GBJ5004	GBJ5004
GBJ5006	GBJ5006
GBJ5008	GBJ5008
GBJ5010	GBJ5010