Formosa MS

GBU10A THRU GBU10M

10.0A Glass Passivated Single-Phase Bridge Rectifiers-50-1000V

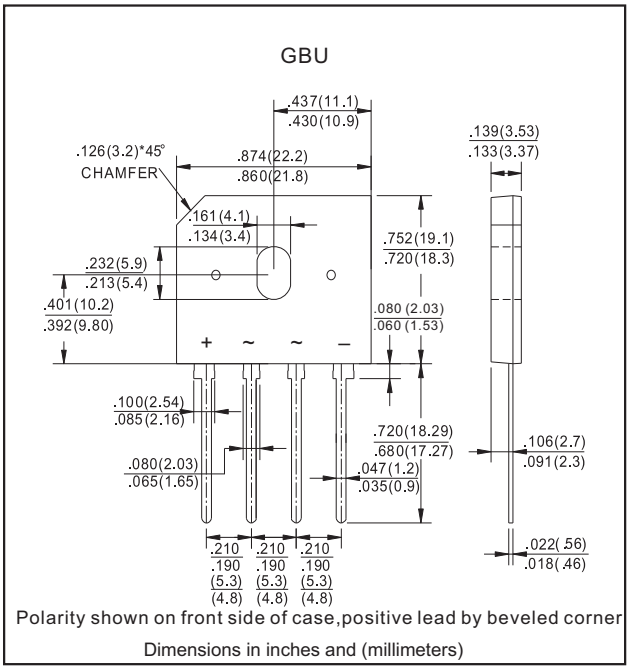
Features

- Surge overload ratings to 200 amperes peak
- Recommended for non-automatic applications
- Ideal for & save space on printed circuit board
- Applicable for automatic insertion
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product
- Glass passivated chip junctions
- Lead-free parts meet RoHS requirements
- Suffix "-H" indicates Halogen free parts, ex. GBU10A-H

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, GBU
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any
- Weight : Approximated 4.00 gram

Package outline



Polarity shown on front side of case,positive lead by beveled corner

Dimensions in inches and (millimeters)

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

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	(with heatsink Note 1) at T_C=100°C（without heatsink）	I_O			10.0 3.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			200	A
Reverse current per diode	V_R = V_{RRM} T_J = 25°C	I_R			10.0	μA
	V_R = V_{RRM} T_J = 125°C				500	
I^2t Rating for fusing	t < 8.3 ms	I^2t			200	A^2s
Typical junction capacitance per diode	Measured at 1.0MHz and applied reverse voltage of 4.0 VDC	C_J		70		pF
Typical thermal resistance	Junction to case	$R_{\theta JC}$		2.0		°C/W
Storage temperature		T_{STG}	-55		+150	°C

Note 1. Device mounted on 100mm*100mm*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)
GBU10A	50	35	50	1.10	-55 to +150
GBU10B	100	70	100		
GBU10D	200	140	200		
GBU10G	400	280	400		
GBU10J	600	420	600		
GBU10K	800	560	800		
GBU10M	1000	700	1000		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage per diode@I_F=5.0A

http://www.formosams.cn
TEL:+86-755-27188611
FAX:+86-755-27188568

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Rating and characteristic curves (GBU10A THRU GBU10M)

Fig. 1 - Forward Current Derating Curve

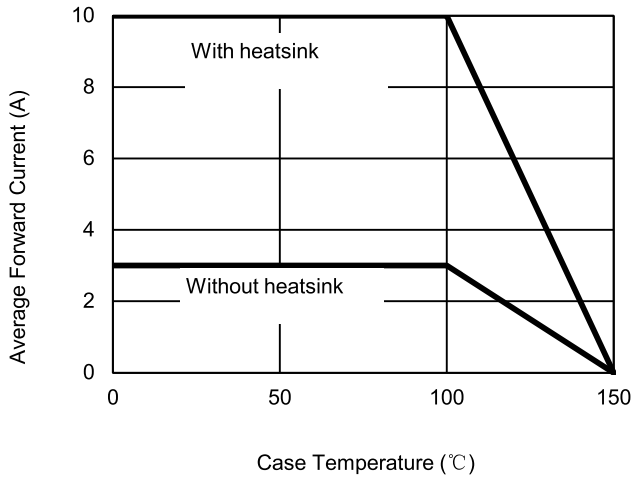


Fig. 2 - Maximum Non-Repetitive Surge Current

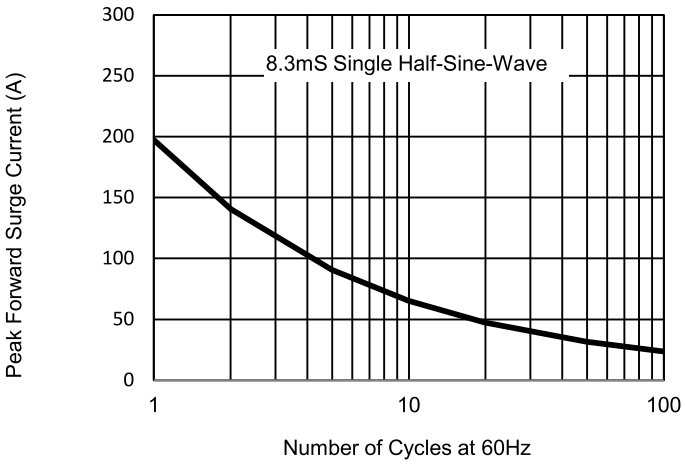


Fig. 3 - Typical Reverse Characteristics

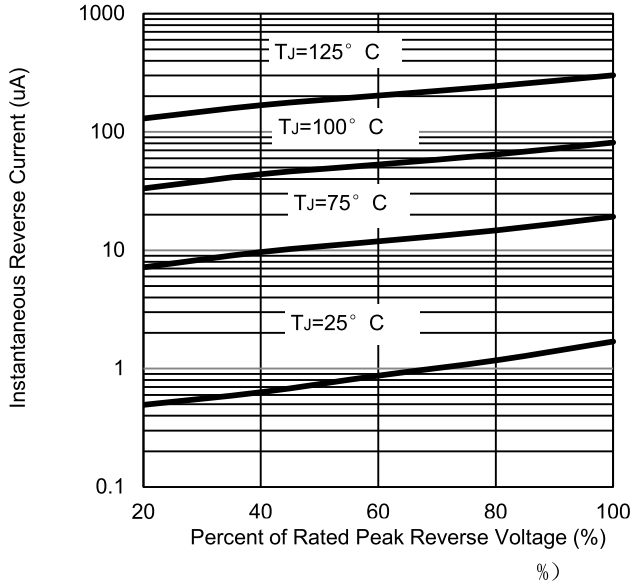


Fig. 4 - Typical Forward Characteristics

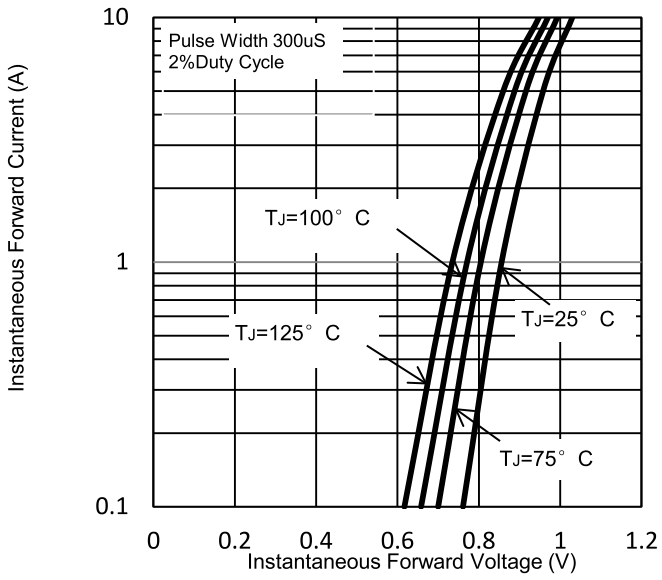
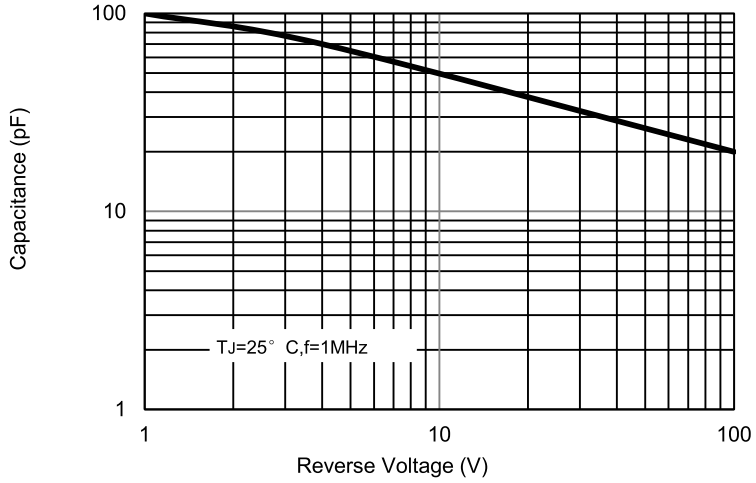


Fig. 5 - Typical Junction Capacitance



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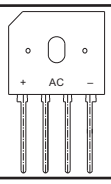
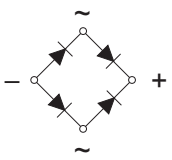
Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
GBU10A	GBU10A
GBU10B	GBU10B
GBU10D	GBU10D
GBU10G	GBU10G
GBU10J	GBU10J
GBU10K	GBU10K
GBU10M	GBU10M