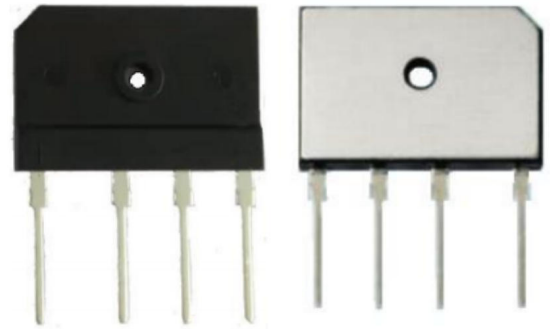


Features

- Low forward voltage drop
- High surge current capability
- Glass passivated die construction
- Suffix "-H" indicates Halogen free parts, ex. GBJH5012-H.

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, HGBJ
- Terminals : Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity : marked on body
- Mounting Position : Any



HGBJ

Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Maximum average forward rectified current	$T_C=90^{\circ}\text{C}$	$I_{F(AV)}$			50.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			500	A
Reverse current	$V_R = V_{RRM} \quad T_A = 25^{\circ}\text{C}$	I_R			5.0	μA
	$V_R = V_{RRM} \quad T_A = 125^{\circ}\text{C}$				500	
Rating for fusing	$t < 8.3 \text{ ms}$	I^2t			1037	A^2s
Typical Junction capacitance Per Element	Measured at 1.0MHz and applied reverse voltage of 4.0V DC	C_J		75		pF
Thermal resistance	Junction to case, With heatsink	$R_{\theta JC}$			0.69	$^{\circ}\text{C/W}$
Storage temperature		T_{STG}	-55		+150	$^{\circ}\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature $T_J, (^{\circ}\text{C})$
GBJH5006	600	420	600	1.1	-55 to +150
GBJH5008	800	560	800		
GBJH5010	1000	700	1000		
GBJH5012	1200	840	1200		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=25\text{A}$

Rating and characteristic curves

Fig. 1 Output Current Derating Curve

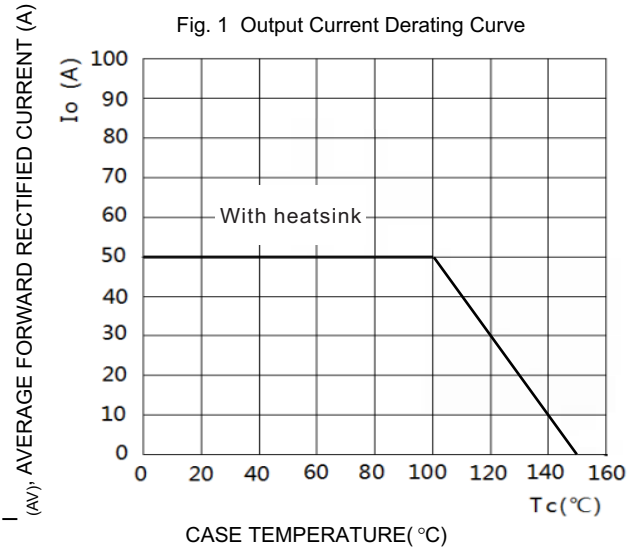


Fig. 2 Typical Forward Characteristics (per leg)

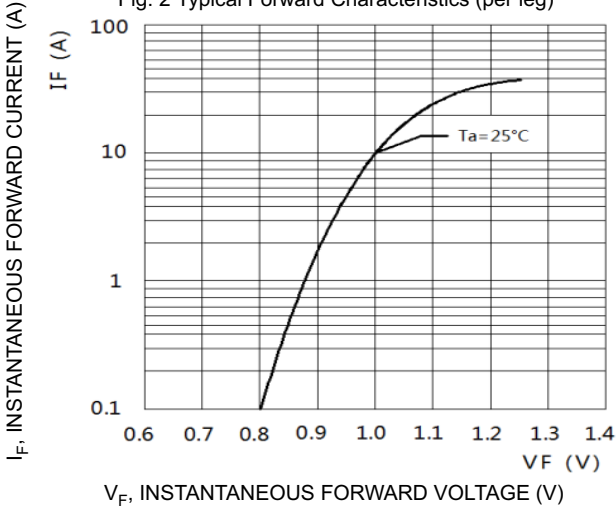


Fig. 3 Maximum Peak Forward Surge Current (per leg)

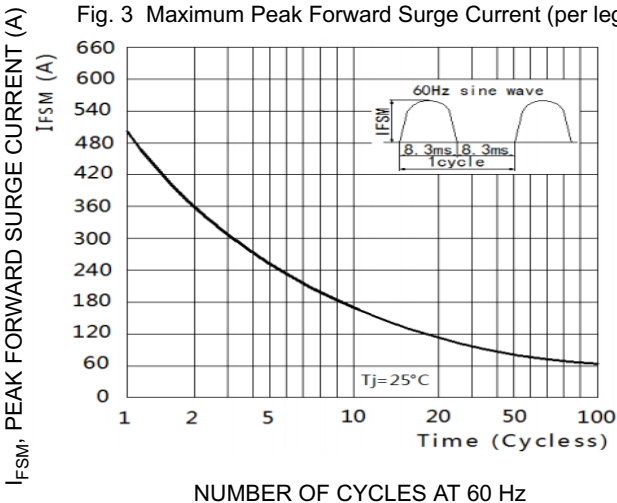
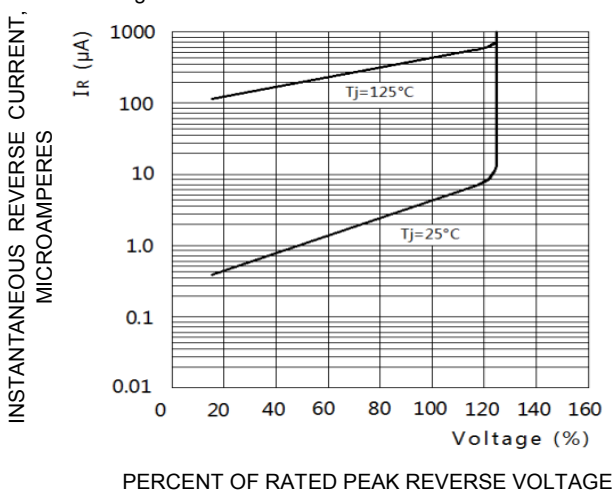
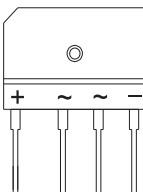
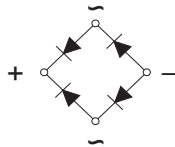


Fig. 4 TYPICAL REVERSE CHARACTERISTICS



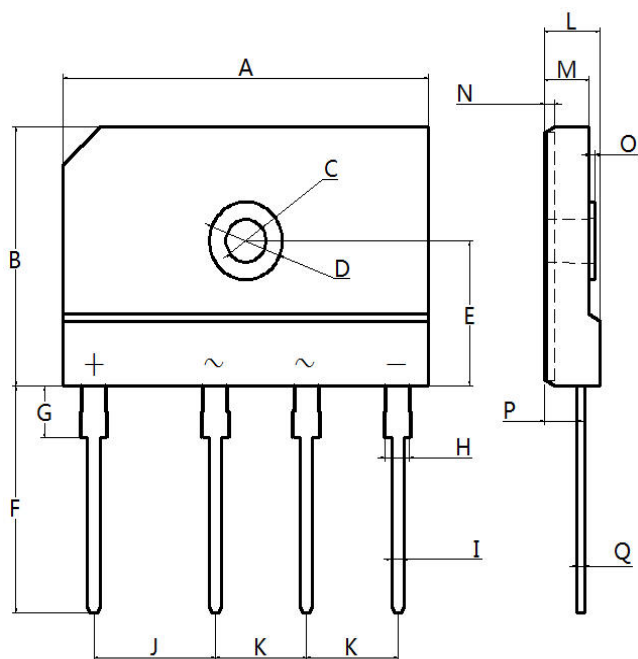
Pinning information

Simplified outline	Symbol
	

Marking

Type number	Marking code
GBJH5006	GBJH5006
GBJH5008	GBJH5008
GBJH5010	GBJH5010
GBJH5012	GBJH5012

HGBJ Package Information



Dim.	Unit(mm)		Unit(inch)	
	Min.	Max.	Min.	Max.
A	29.70	30.30	1.169	1.193
B	19.70	20.30	0.776	0.799
C	3.10	3.50	0.122	0.138
D	5.80	6.20	0.228	0.244
E	11.00	11.40	0.433	0.449
F	17.00	18.00	0.669	0.709
G	3.50	4.50	0.138	0.177
H	1.80	2.20	0.071	0.087
I	0.90	1.10	0.035	0.043
J	9.80	10.20	0.386	0.402
K	7.30	7.70	0.287	0.303
L	4.40	4.80	0.173	0.189
M	3.50	3.90	0.138	0.154
N	0.75	0.95	0.030	0.037
O	0.30	0.70	0.012	0.028
P	2.50	2.90	0.098	0.114
Q	0.55	0.75	0.022	0.030