SEMICONDUCTOR

GBJ2506HB THRU GBJ2510HB

General Purpose Bridge Rectifiers with Back Heatsink
Reverse Voltage:600\800\1000V
Forward Current:25.0A

Features

- Plastic package has UL Flammability Classification 94V-0
- Glass passivated chip junction
- High current capability
- Low forward voltage drop
- Dielectric tested to maximum case, storage and junction temperature to 150 °C to withstand 1500 V
- High temperature soldering guaranteed:275℃/10S
- Component in accordance to RoHS 2015/863/EU

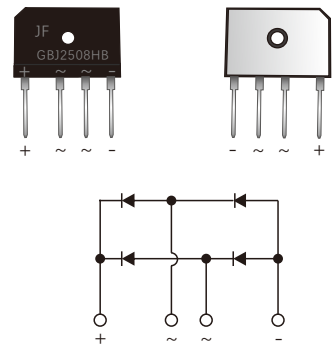
Mechanical data

- Case:GBJ-HB molded plastic body
- Terminals:Plated leads solderable per MIL-STD-750,methode 2026
- Polarity:As marked
- Mounting Position:Any
- Mounting Torque:MAX 10cm-Kg(8.8inches-lbs)
- Recommended Torque: 5.7 cm-kg (5 inches-lbs)
- Weight:7.40grams(approx.)

Typical Applications

- Used in AC/DC bridge full wave rectificationfor SPS, home appliances and white-goods applications.

GBJHB



PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	25A
V_{RRM}	600V,800V,1000V
I_{FSM}	300A
V_F at I_F=12.5A	1V
I_R	10μA
T_J(MAX)	150℃
Package	GBJHB

Maximum Ratings And Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

Parameters	Symbol	GBJ2506HB	GBJ2508HB	GBJ2510HB	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	25			A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method,Total device)	I_{FSM}	300			A
Rating for fusing(t<8.3ms)	I^2t	373.5			A^2S
Operating junction temperature range	T_J	-55 to 150			℃
Storge temperature range	Tstg	-55 to 150			℃

RATINGS AND CHARACTERISTICS OF GBJ2506HB THRU GBJ2510HB

Electrical Characteristcs (Per diode,T_A=25℃ Unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous forward voltage	T_J=25℃	I_F=1A I_F=5A I_F=12.5A	VF 1)	0.81 0.90 0.98	- - 1.10	V
	T_J=125℃	I_F=1A I_F=5A I_F=12.5A		0.66 0.77 0.87	- - -	
Reverse current	V_R=V_{RRM}	T_J=25℃	IR 2)	-	5	μA
		T_J=100℃		-	70	
		T_J=125℃		-	250	
Typical junction capacitance	4V,1MHz		CJ	100		pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width≤40ms

Thermal Characteristcs

Parameter	Symbol	GBJ	Unit
Typical thermal resistance 3)	RθJC	1.0	℃/W

3.Thermal resistance from per diode junction to case

RATINGS AND CHARACTERISTICS OF GBJ2506HB THRU GBJ2510HB

Fig.1-Forward Current Derating Curve

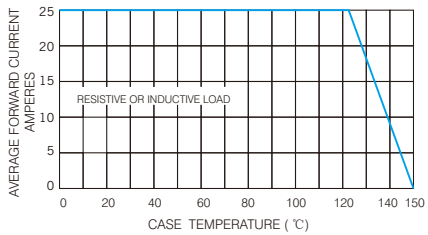


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

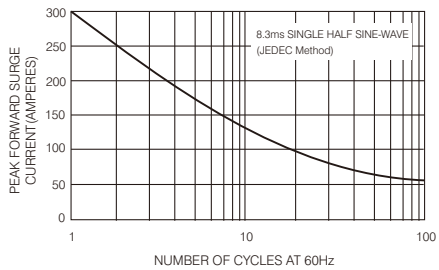


Fig.3-Typical Instantaneous Forward Characteristics

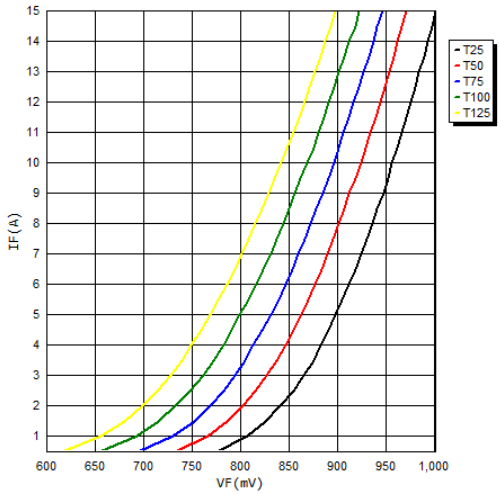


Fig.4-Typical Reverse Characteristics

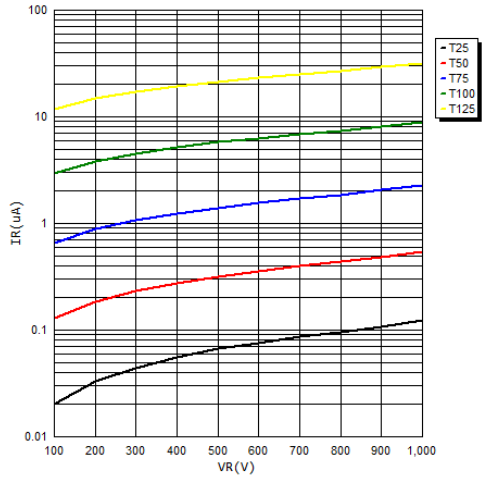
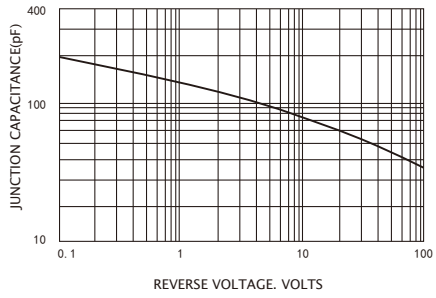
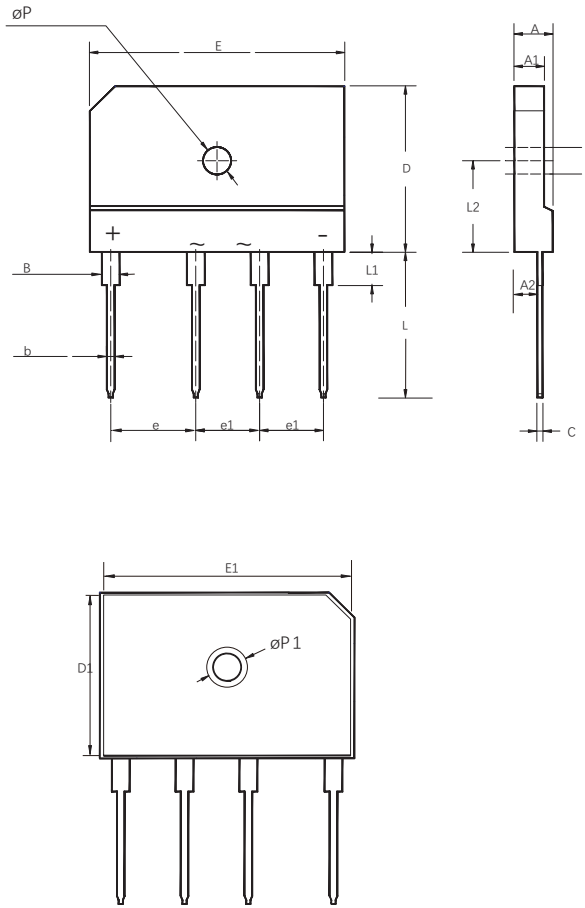


Fig.5-Typical Junction Capacitance



PACKAGE OUTLINE DIMENSIONS

GBJHB



GBJ		
Dim	Min	Max
A	4.40	5.00
A1	3.30	3.80
A2	2.60	3.00
B	1.90	2.40
b	0.90	1.10
C	0.60	0.80
D	19.60	20.60
D1	18.50	19.50
E	29.00	31.00
E1	28.50	29.50
e	9.50	10.50
e1	7.00	8.00
L	16.60	18.00
L1	3.00	4.20
L2	10.80	11.80
øP	3.10	3.80
øP1	5.10	5.90

Dimensions in milimeters

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