SZCJ

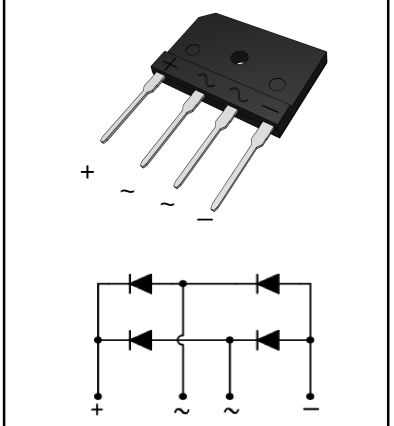
Shenzhen Changji Semiconductor Co., LTD.

6GBJ Plastic-Encapsulate Bridge Rectifier

GBJ20005 THRU GBJ2010 General Purpose Bridge Rectifier

PRIMARY CHARACTERISTICS		
PARAMETER	**VALUE**	**UNIT**
$I_{F(AV)}$	20	A
V_{RWM}	50-1000	V
I_{FSM}	300	A
T_j	150	℃
V_F	1.1	V

6GBJ



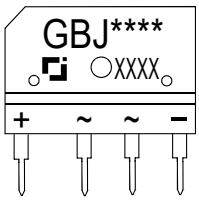
FEATURES

- Idea for printed circuit board
- Glass passivated junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 260℃/10 seconds at terminals

Mechanical Data

- Case: 6GBJ
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Polarity symbol marking on body

MARKING



GBJ**** = Device code，****：From 20005 to 2010

XXXX = Code

Typical Characteristics

Limiting Values (Absolute Maximum Rating)

Symbol	Item	Unit	GBJ20						
			005	01	02	04	06	08	10
V_{RRM}	Peak Repetitive Reverse Voltage	V	50	100	200	400	600	800	1000
V_R	DC Blocking Voltage	V							
V_{RMS}	RMS Reverse Voltage	V	35	70	140	320	420	560	700
$I_{F(AV)}$	Average Forward Rectified Current @60Hz sine wave, R-load	A	20						
I_{FSM}	Non-Repetitive Surge Forward Current @8.3 ms single half sine-wave,1 cycle, Tj=25℃	A	300						
I^2t	Current squared time @1ms≤t≤8.3ms,Tj=25℃, Rating of per diode	A^2S	374						
T_{STG}	Storage Temperature range	℃	-55 to +150						
T_J	Operating junction temperature	℃	-55 to +150						

Electrical Characteristics(Ta=25℃ Unless otherwise specified)

Symbol	Item	Unit	Test Conditions		TYP.	Max.
V_F	Maximum instantaneous forward voltage drop per diode (Note 1)	V	IF=10A		0.9	1.1
IR	Peak reverse current at rated DC blocking voltage per diode(Note 2)	μA	$V_{RM}=V_{RRM}$	T_j=25℃		5
				T_j=125℃		500
C_{tot}	Total capacitance per Element (Note 3)	pF	VR=4V,f=1MHz		82	
$R_{\theta JC}$	Thermal resistance	℃/W	Between junction and case, With heatsink			2.5
$R_{\theta JA}$		℃/W	Between junction and ambient, Without heatsink			40

Notes:

(1) Pulse test: 300 μs pulse width, 1 % duty cycle

(2) Pulse test: pulse width ≤ 40 ms

(3) Per element, measured at 1.0MHz and applied reverse voltage of 4.0V DC

Typical Characteristics

Figure 1. Current Derating

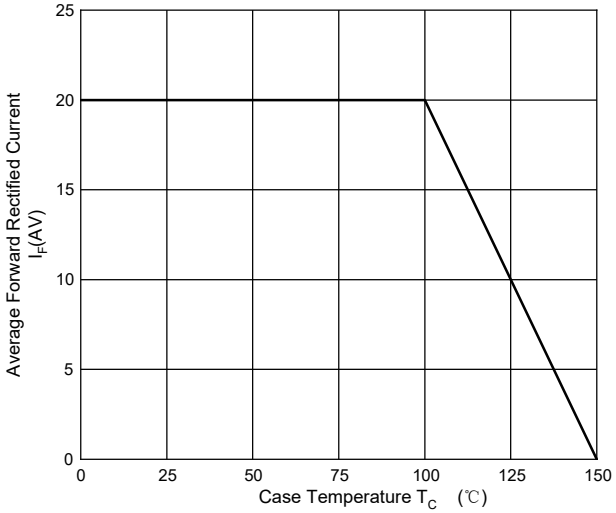


Figure 2. Maximum Non-Repetitive Forward Surge Current

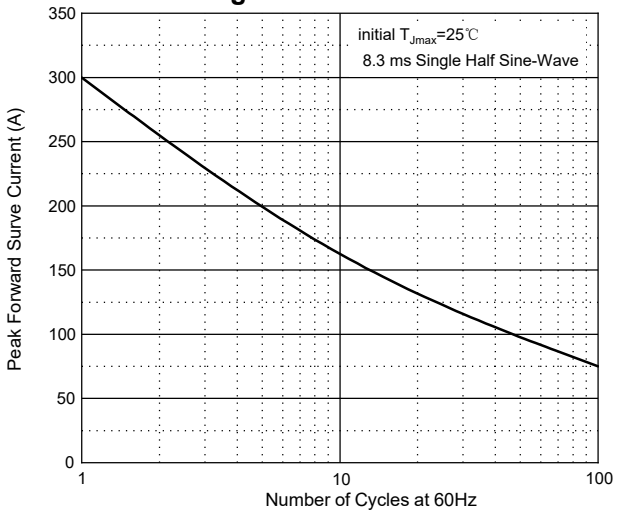


Figure 3. Forward Characteristics

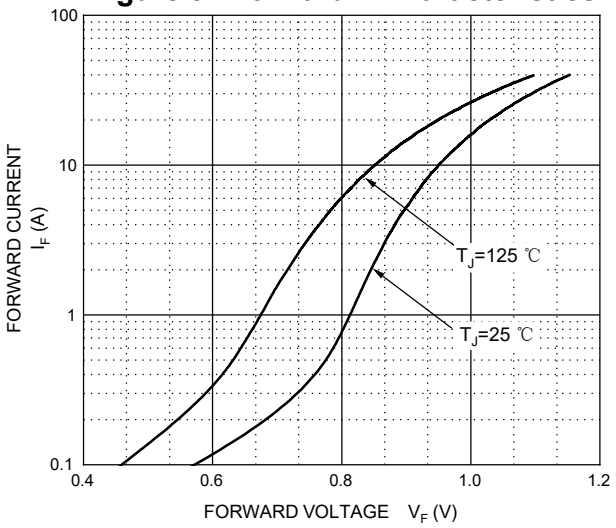
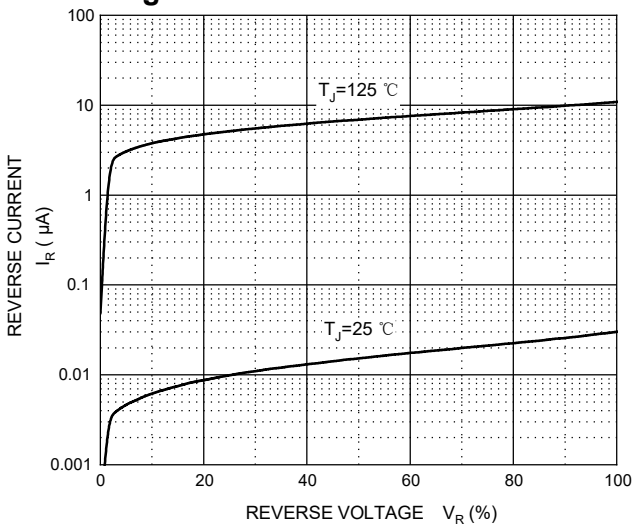
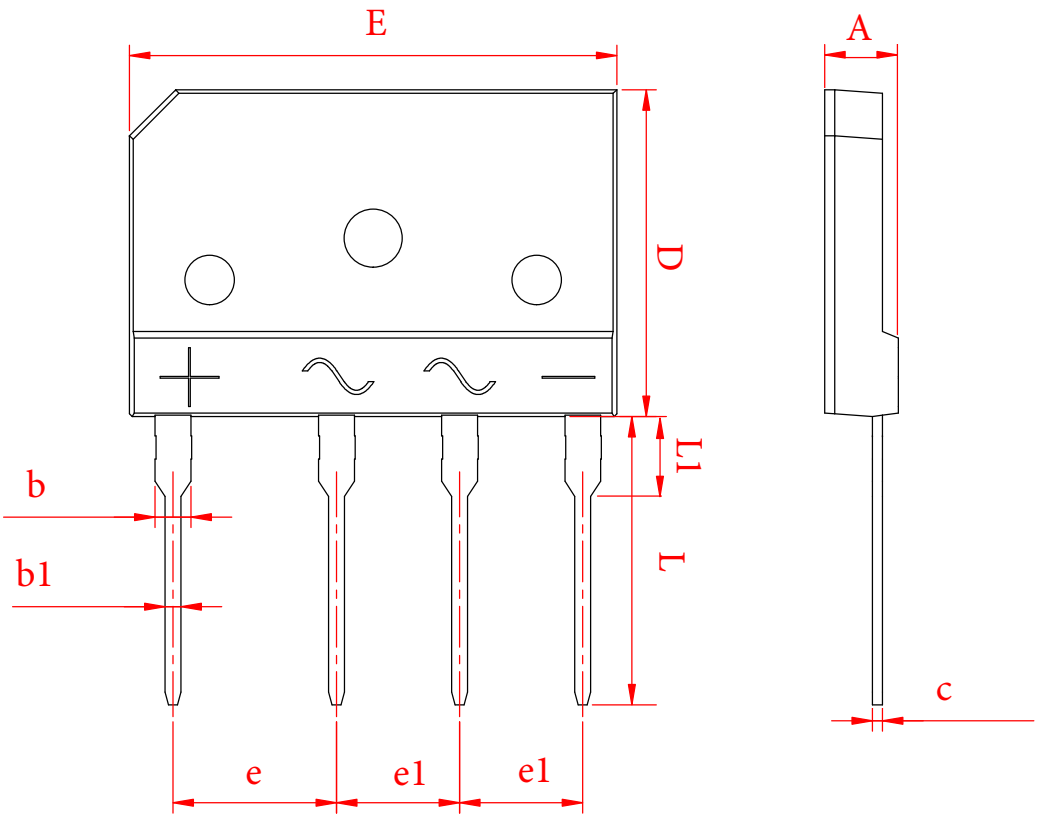


Figure 4. Reverse Characteristics



6GBJ Package Outline Dimensions



DIM	Unit:mm		Unit:inch	
	MIN	MAX	MIN	MAX
A	4.4	4.8	0.173	0.189
b	2.0	2.4	0.079	0.095
b1	0.9	1.1	0.035	0.043
c	0.6	0.8	0.024	0.032
D	19.7	20.3	0.776	0.799
e	9.8	10.2	0.386	0.402
e1	7.3	7.7	0.287	0.303
E	29.7	30.3	1.169	1.193
L	17.0	18.0	0.669	0.709
L1	3.8	4.2	0.150	0.165

NOTICE

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