


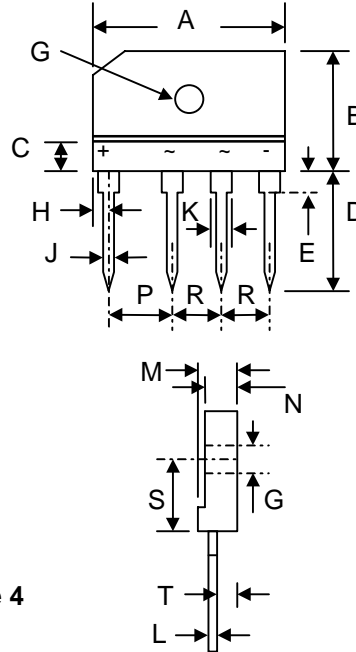
## 6.0A GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
-  Recognized File # E157705

### Mechanical Data

- Case: GBJ-6, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 7.0 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 10 cm·kg (8.8 in·lbs) Max.
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



GBJ-6		
Dim	Min	Max
A	29.7	30.3
B	19.7	20.3
C	—	5.0
D	17.0	18.0
E	3.8	4.2
G	3.1Ø	3.4Ø
H	2.3	2.7
J	0.9	1.1
K	1.8	2.2
L	0.6	0.8
M	4.4	4.8
N	3.4	3.8
P	9.8	10.2
R	7.3	7.7
S	10.8	11.2
T	2.3	2.7
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristic	Symbol	GBJ6A	GBJ6B	GBJ6D	GBJ6G	GBJ6J	GBJ6K	GBJ6M	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>C</sub> = 110°C (Note 1)	I <sub>O</sub>	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	170							A
Forward Voltage per diode @I <sub>F</sub> = 3.0A	V <sub>FM</sub>	1.0							V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C	I <sub>R</sub>	10 250							µA
Typical Thermal Resistance per leg (Note 2)	R <sub>θJA</sub>	26							°C/W
Typical Thermal Resistance per leg (Note 1)	R <sub>θJC</sub>	3.4							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

Note: 1. Device mounted on 75 x 75 x 1.6mm thick Al plate heatsink.  
2. Device mounted on P.C.B. without heatsink.

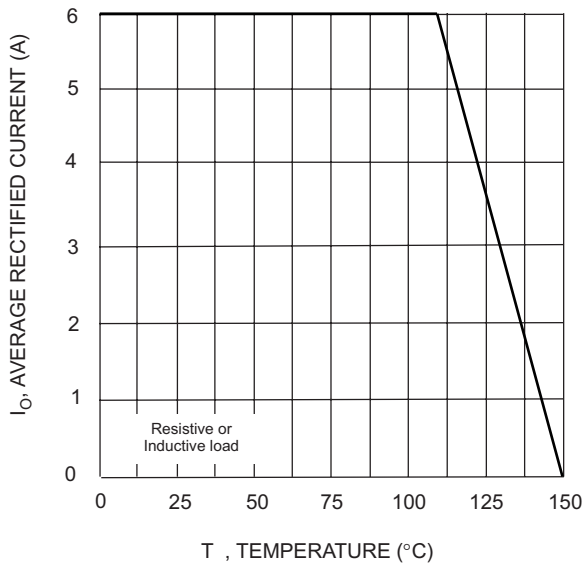


Fig. 1 Forward Current Derating Curve

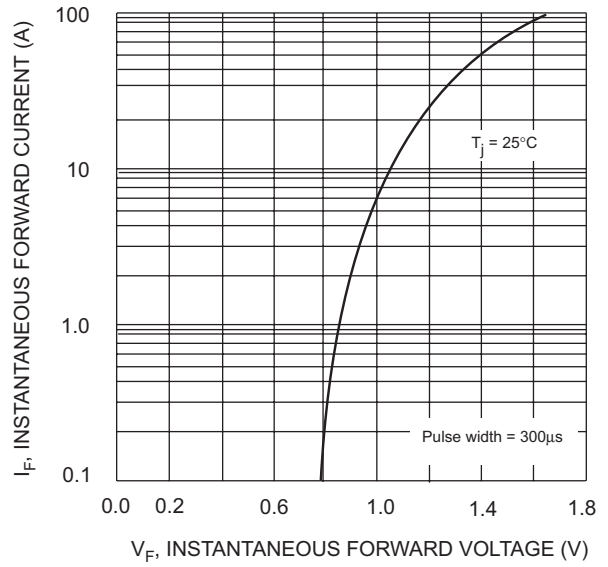


Fig. 2 Typical Fwd Characteristics

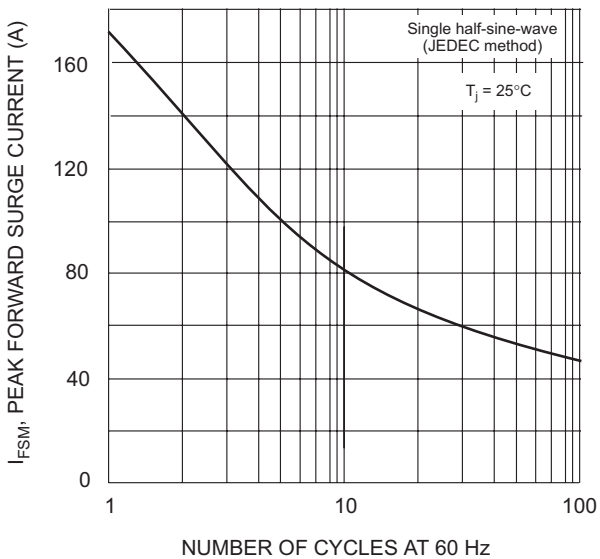


Fig. 3 Maximum Non-Repetitive Surge Current

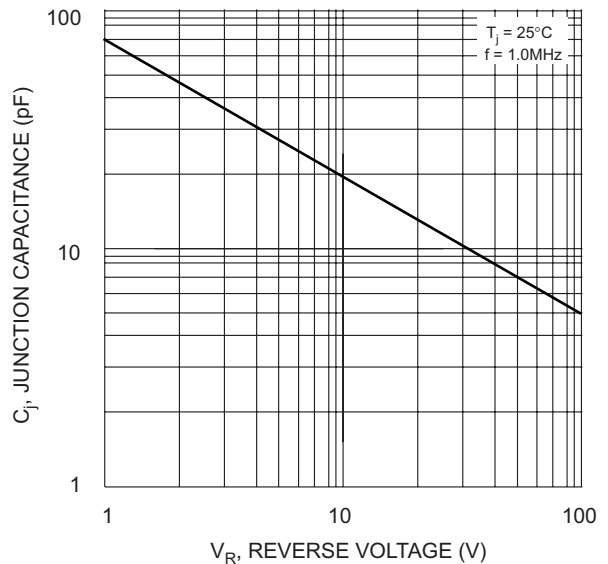
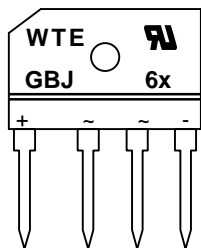


Fig. 4 Typical Junction Capacitance

## MARKING INFORMATION



WTE = Manufacturer's Logo  
 GBJ6x = Device Number  
 x = A, B, D, G, J, K or M  
 Polarity = As Marked on Body

## PACKAGING INFORMATION

### BULK

Tube Size L x W x H (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
475 x 40 x 7	15	490 x 145 x 135	750	510 x 305 x 160	1,500	16.0

**Note:** 1. Anti-static tube, water clear color.

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
GBJ6A	SIL Bridge	15 Units/Tube
GBJ6B	SIL Bridge	15 Units/Tube
GBJ6D	SIL Bridge	15 Units/Tube
GBJ6G	SIL Bridge	15 Units/Tube
GBJ6J	SIL Bridge	15 Units/Tube
GBJ6K	SIL Bridge	15 Units/Tube
GBJ6M	SIL Bridge	15 Units/Tube

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, GBJ6A-LF.**

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