WON-TOP ELECTRONICS

GBJ10A – GBJ10M

10A GLASS PASSIVATED SINGLE PHASE BRIDGE RECTIFIER

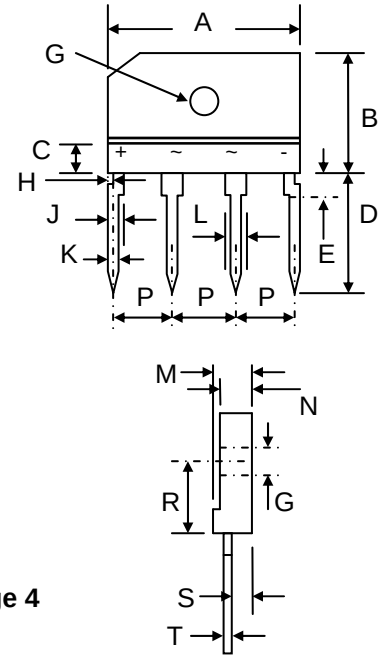
RoHS Pb

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: KBJ-4, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 4.6 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 0.8 N.m Max.
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



KBJ-4		
Dim	**Min**	**Max**
A	24.7	25.3
B	14.7	15.3
C	3.0	5.0
D	17.0	18.0
E	3.3	3.7
G	3.1Ø	3.6Ø
H	1.05	1.45
J	1.7	2.1
K	0.9	1.1
L	1.5	1.9
M	4.4	4.8
N	3.4	3.8
P	7.3	7.7
R	9.5	10.1
S	2.5	2.9
T	0.6	0.8
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

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

Characteristic	Symbol	GBJ 10A	GBJ 10B	GBJ 10D	GBJ 10G	GBJ 10J	GBJ 10K	GBJ 10M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @T_C = 110°C (Note 1)	I_O	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	170							A
Forward Voltage per leg @I_F = 5.0A	V_{FM}	1.05							V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_{RM}	10 500							μA
I^2t Rating for Fusing (t < 8.3ms)	I^2t	120							A^2s
Typical Junction Capacitance (Note 2)	C_J	55							pF
Thermal Resistance Junction to Ambient (Note 3) Thermal Resistance Junction to Case (Note 1)	$R_{\theta JA}$ $R_{\theta JC}$	26 1.9							°C/W
RMS Isolation Voltage Terminals to Case, t = 1min	V_{ISO}	2500							V
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

Note: 1. Mounted on 100 x 100 x 1.6mm thick Al. heatsink.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
3. Mounted on PCB with 12 x 12mm copper pads and measured at lead length 9.5mm from case.

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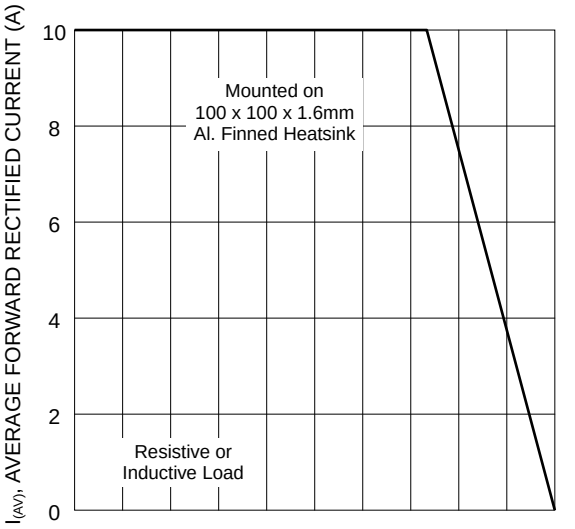


Fig. 1 Forward Current Derating Curve

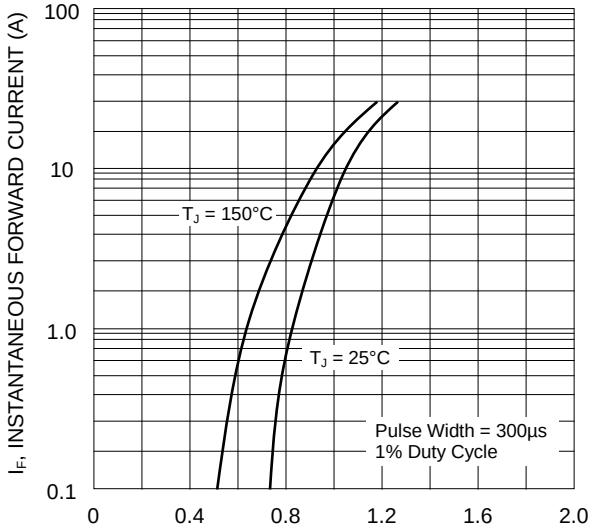


Fig. 2 Typical Forward Characteristics

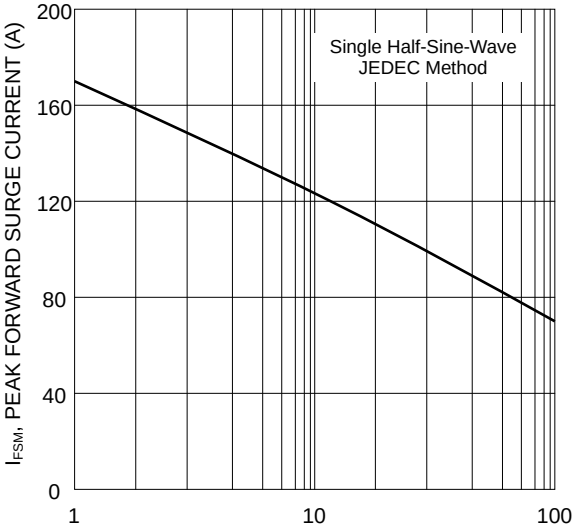


Fig. 3 Forward Surge Current Derating Curve

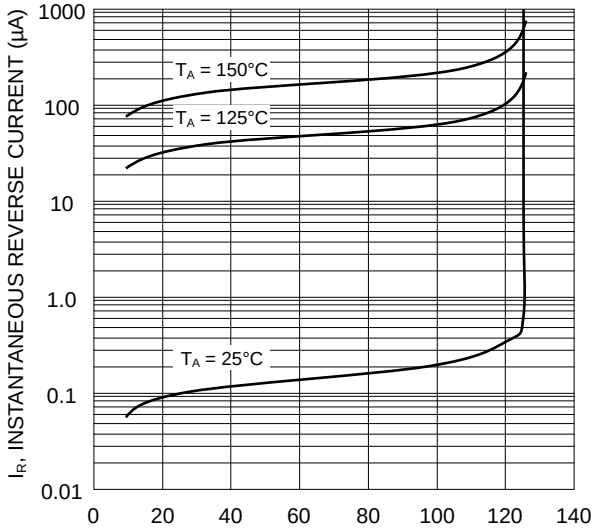


Fig. 4 Typical Reverse Characteristics

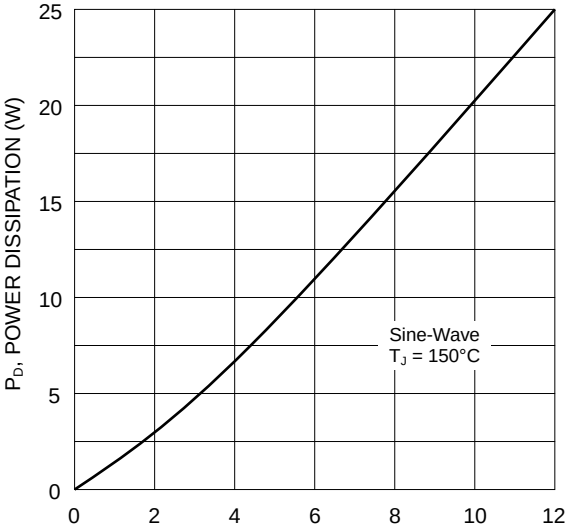


Fig. 5 Forward Power Dissipation

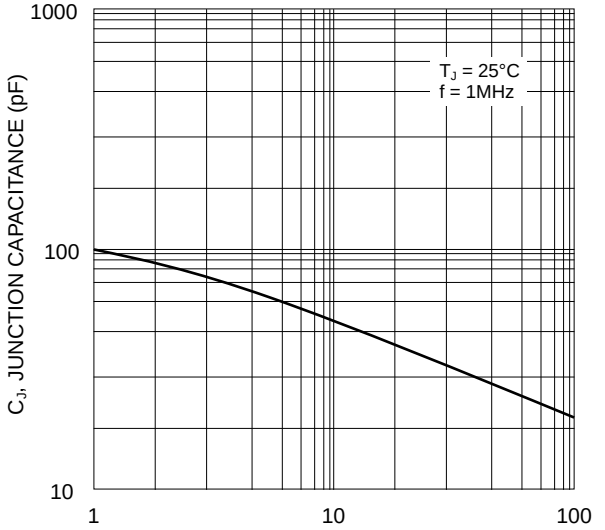
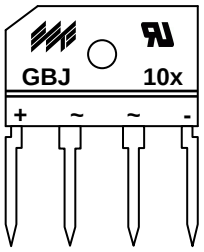


Fig. 6 Typical Junction Capacitance

MARKING INFORMATION



GBJ10x = 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)
525 x 35 x 7	20	542 x 135 x 135	1,000	557 x 270 x 270	4,000	30.0

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

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ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
GBJ10A	SIL Bridge	20 Units/Tube
GBJ10B	SIL Bridge	20 Units/Tube
GBJ10D	SIL Bridge	20 Units/Tube
GBJ10G	SIL Bridge	20 Units/Tube
GBJ10J	SIL Bridge	20 Units/Tube
GBJ10K	SIL Bridge	20 Units/Tube
GBJ10M	SIL Bridge	20 Units/Tube

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, GBJ10A-LF**.

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