35A GLASS PASSIVATED BRIDGE RECTIFIER

NEW PRODUCT

Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 2500V_{RMS}
- Low Reverse Leakage Current
- Surge Overload Rating to 400A Peak
- Ideal for Printed Circuit Board Applications
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**

Mechanical Data

- Case: GBJ
- Case Material: Molded Plastic. UL Flammability Classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Lead Free Tin Plated Leads, Solderable per MIL-STD-202, Method 208 e3
- Polarity: Molded on Body
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 5.0 in-lbs Maximum
- Marking: Part Number
- Weight: 6.6 grams (Approximate)

Ordering Information (Note 3)

Part Number	Qualification	Case	Packaging
GBJ3510-F	Commercial	GBJ	15/Tube

Notes:
1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant. All applicable RoHS exemptions applied.
2. See http://www.diodes.com/quality/lead_free.html for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. For packaging details, go to our website at http://www.diodes.com/products/packages.html.

Maximum Ratings (@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	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	700	V
Average Forward Rectified Output Current (Note 4) With Heatsink T_C = +80°C Without Heatsink T_C = +25°C	I_O	35 3.6	A
Non-Repetitive Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on rated Load	I_{FSM}	400	A
I^2t Rating for Fusing (3ms < t < 8.3ms) (Note 4)	I^2t	664	A^2S
Mounting Torque (Recommended Torque: 0.5N.m)	TOR	0.8	N.m

Thermal Characteristics

Characteristic		Symbol	Value	Unit
Typical Thermal Resistance Junction to Case	(Note 5)	$R_{\theta JC}$	1.0	°C/W
Typical Thermal Resistance Junction to Lead	(Note 5)	$R_{\theta JL}$	1.5	°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-55 to +150	°C

Notes:
4. Non-repetitive, for t > 1ms and < 8.3ms.
5. Thermal resistance from junction to case per element. Unit mounted on 250 x 250 x 25mm aluminum plate heat sink.

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Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic		Symbol	Value	Unit
Forward Voltage (Per Element)	@ I_F = 17.5A	V_{FM}	1.1	V
Peak Reverse Current at Rated DC Blocking Voltage	@ T_C = +25°C @ T_C = +125°C	I_R	10 500	μA
Typical Total Capacitance (Per Element)	(Note 6)	C_T	150	pF

Note: 6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

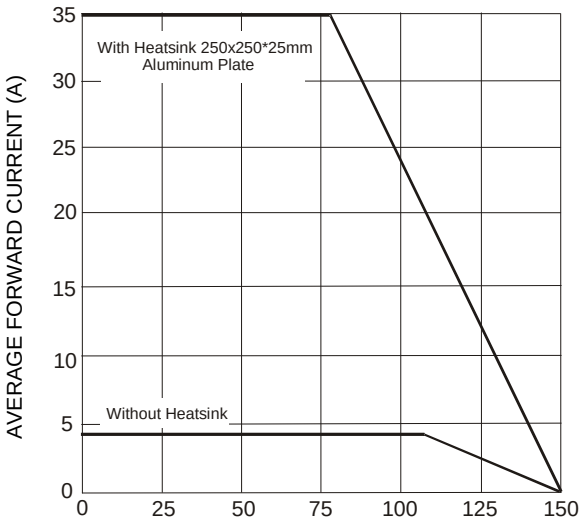

Figure 1 Forward Current Derating Curve

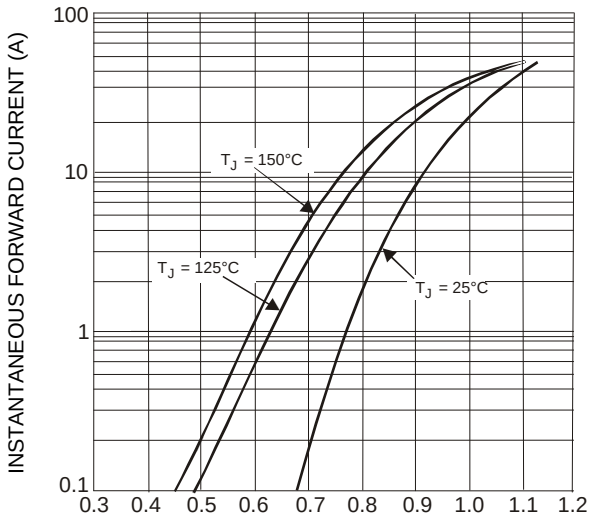

Figure 2 Typical Forward Characteristics

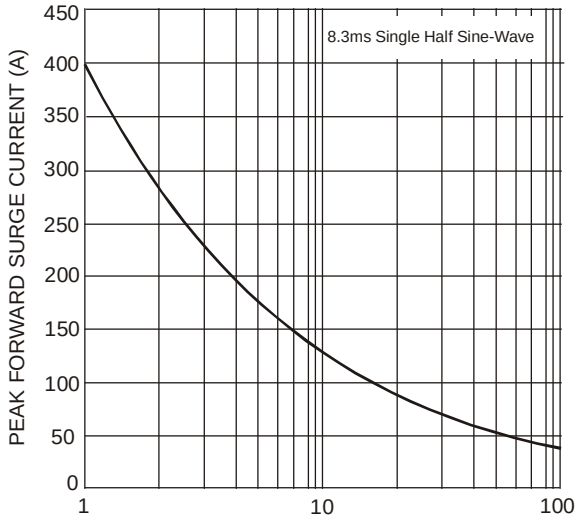

Figure 3 Maximum Non-Repetitive Surge Current

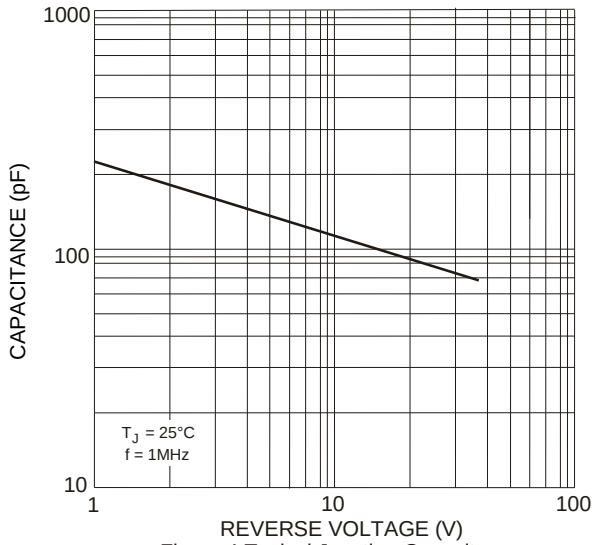

Figure 4 Typical Junction Capacitance

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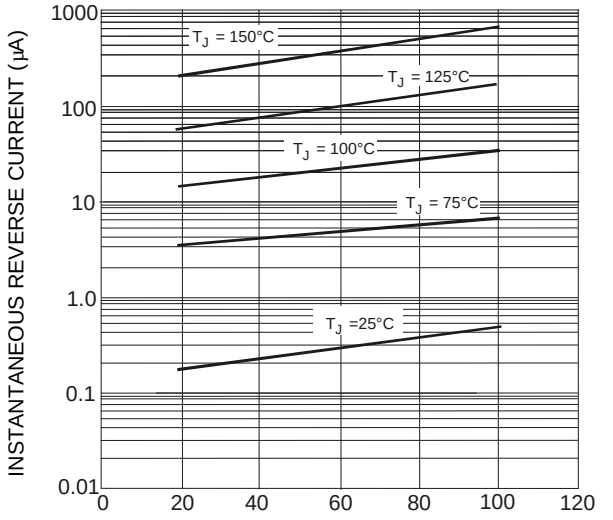
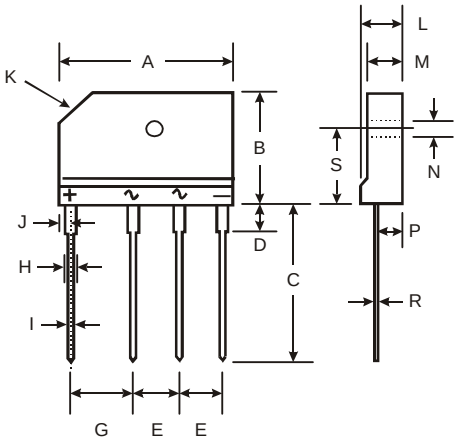


Figure 5 Typical Reverse Characteristics

Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

GBJ



GBJ		
Dim	**Min**	**Max**
A	29.70	30.30
B	19.70	20.30
C	17.00	18.00
D	3.80	4.20
E	7.30	7.70
G	9.80	10.20
H	2.00	2.40
I	0.90	1.10
J	2.30	2.70
K	3.0 X 45°	
L	4.40	4.80
M	3.40	3.80
N	3.10	3.40
P	2.50	2.90
R	0.60	0.80
S	10.80	11.20
All Dimensions in mm		

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