GBJ3510

35A STANDARD RECOVERY BRIDGE RECTIFIER

Product Summary

V_{RRM} (V)	I_F (A)	V_F Max (V) @ I_F = 17.5A	I_R Max (μA)
1000	35	1.1	10

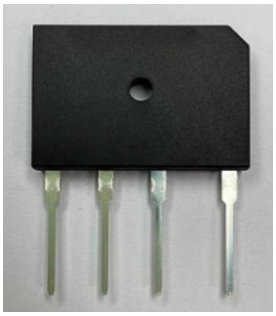
Features

- 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
- UL Listed Under Recognized Component Index, File Number E95060
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please contact us or your local Diodes representative. https://www.diodes.com/quality/product-definitions/**

Mechanical Data

- Package: GBJ
- Package Material: Molded Plastic. UL Flammability Classification 94V-0
- 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)

GBJ

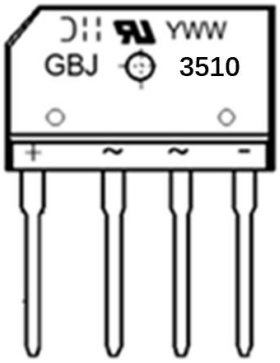


Ordering Information (Note 3)

Orderable Part Number	Package	Packing	
		Qty.	Carrier
GBJ3510-F	GBJ	15	Tube

Notes:
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See https://www.diodes.com/quality/lead-free/ 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 https://www.diodes.com/design/support/packaging/diodes-packaging/.

Marking Information



GBJ3510 = Product Type Marking Code
= Manufacturer's Code Marking
YWW = Date Code Marking
Y = Last Digit of Year (ex: 5 = 2025)
WW = Week Code (01 to 53)

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 Rectified Output Current (Note 4)	With Heatsink T_C = +80°C With Heatsink T_C = +80°C	$I_{F(AV)}$	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 (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 250mm x 250mm x 25mm aluminum plate heatsink.

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.

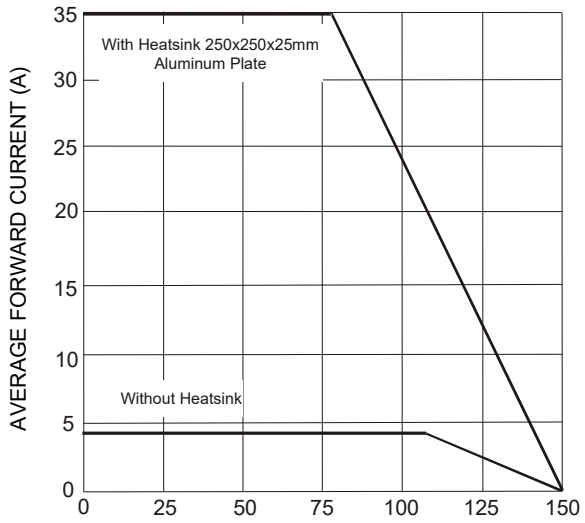


Figure 1 Forward Current Derating Curve

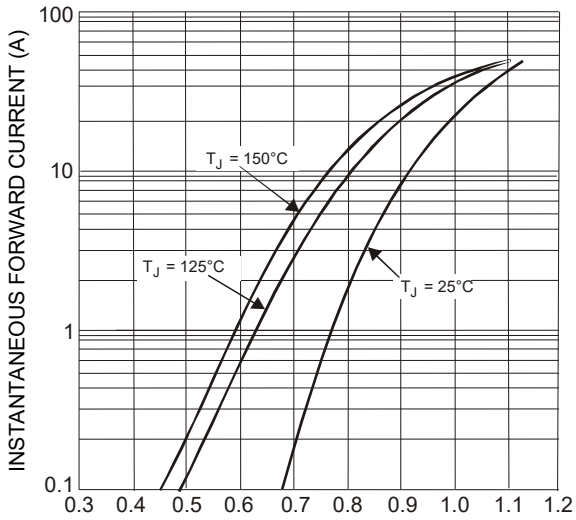


Figure 2 Typical Forward Characteristics

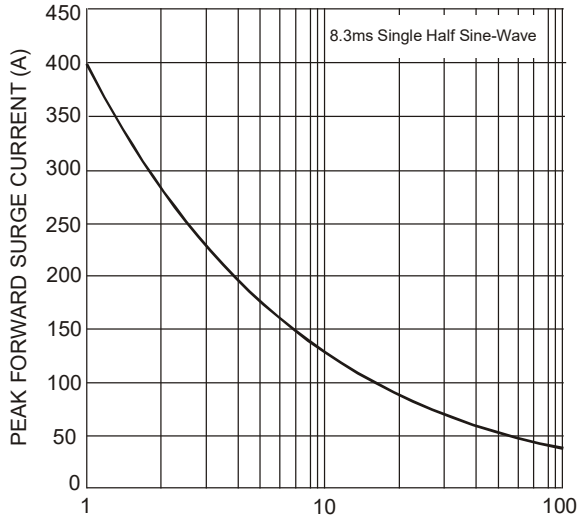


Figure 3 Maximum Non-Repetitive Surge Current

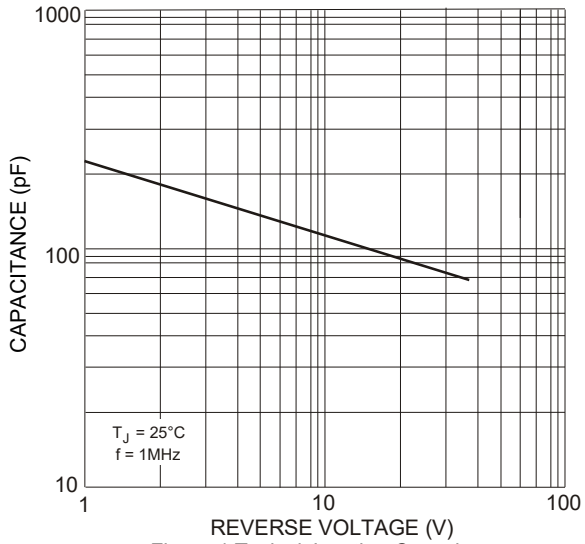


Figure 4 Typical Junction Capacitance

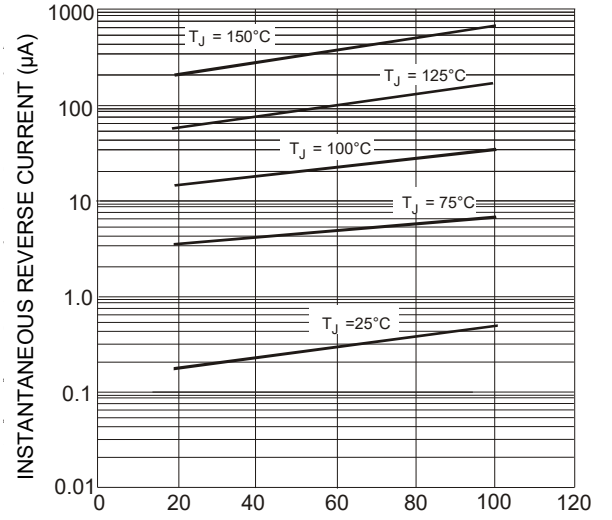
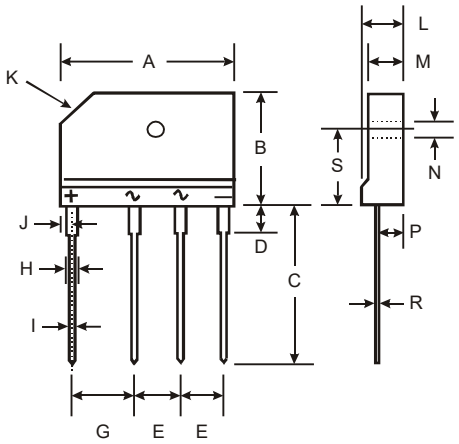


Figure 5 Typical Reverse Characteristics

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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