



### 35A GLASS PASSIVATED BRIDGE RECTIFIER

## Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 2500V<sub>RMS</sub>
- 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
- 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.

 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<sub>A</sub> = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	700	V
Average Forward Rectified Output CurrentWith Heatsink $T_C = +80^{\circ}C$ (Note 4)Without Heatsink $T_C = +25^{\circ}C$	lo	35 3.6	А
Non-Repetitive Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on rated Load	I <sub>FSM</sub>	400	А
I <sup>2</sup> t Rating for Fusing (3ms < t < 8.3ms) (Note 4)	l <sup>2</sup> t	664	A <sup>2</sup> S
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)	$R_{ ext{ heta}JL}$	1.5	°C/W
Operating and Storage Temperature Range		T <sub>J,</sub> T <sub>STG</sub>	-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.



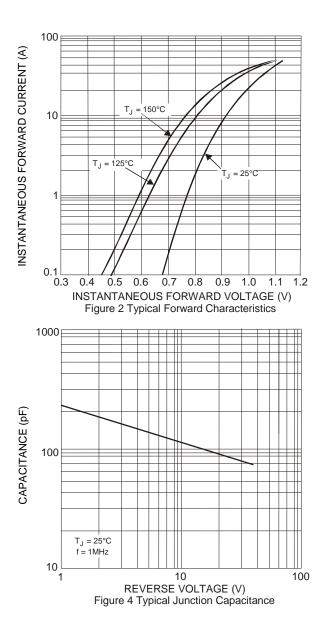
GBJ3510

# Electrical Characteristics (@T<sub>A</sub> = +25°C, unless otherwise specified.)

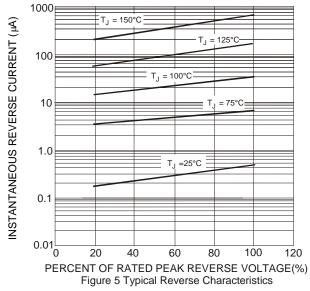
Characteristic		Symbol	Value	Unit
Forward Voltage (Per Element)	@ I <sub>F</sub> = 17.5A	V <sub>FM</sub>	1.1	V
Peak Reverse Current at Rated DC Blocking Voltage	@ T <sub>C</sub> = +25°C @ T <sub>C</sub> = +125°C	D	10 500	μΑ
Typical Total Capacitance (Per Element)	(Note 6)	CT	150	pF

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

35 With Heatsink 250x250\*25mm Aluminum Plate 30 AVERAGE FORWARD CURRENT (A) 25 20 15 10 Without Heatsink 5 0 ∟ 0 25 50 75 100 125 150 CASE TEMPERATURE (°C) Figure 1 Forward Current Derating Curve 450 8.3ms Single Half Sine-Wave PEAK FORWARD SURGE CURRENT (A) 400 350 300 250 200 150 100 50 0 100 1 10 NUMBER OF CYCLES AT 60 Hz Figure 3 Maximum Non-Repetitive Surge Current

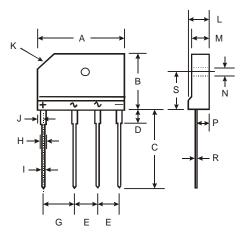






# Package Outline Dimensions

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



GBJ		
Dim	Min	Max
A	29.70	30.30
в	19.70	20.30
С	17.00	18.00
D	3.80	4.20
Е	7.30	7.70
G	9.80	10.20
Н	2.00	2.40
-	0.90	1.10
J	2.30	2.70
K	3.0 X 45°	
L	4.40	4.80
М	3.40	3.80
Ν	3.10	3.40
Р	2.50	2.90
R	0.60	0.80
S	10.80	11.20
All Dimensions in mm		

## **GBJ3510**

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