

Product Summary

V_{RRM} (V)	I_F (A)	V_F Max (V) @ $I_F = 17.5A$	I_R Max (μA)
600, 800	35	1.1	10

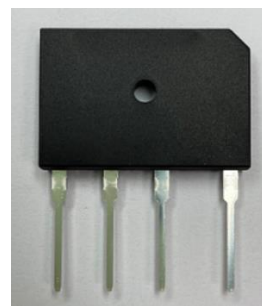
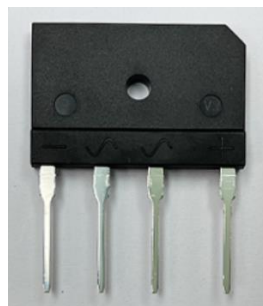
Mechanical Data

- Package: GBJ
- Package Material: Plastic Material, UL Flammability Classification 94V-0
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 
- Polarity Indicator: Symbol Molded on Body
- Weight: 6.60 grams (Approximate)

Features

- Glass Passivated Die Construction
- Ideal for Printed Circuit Board
- High Surge Current Capability
- ESD Capability:
 - Machine Mode, C (> 400V)
 - Human Body Model, 3B (> 8kV)
- UL Recognized File # E95060
- Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- Halogen and Antimony Free. "Green" Device (Note 3)**
- 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](https://www.diodes.com/quality/product-definitions/) or your local Diodes representative.**
<https://www.diodes.com/quality/product-definitions/>

GBJ

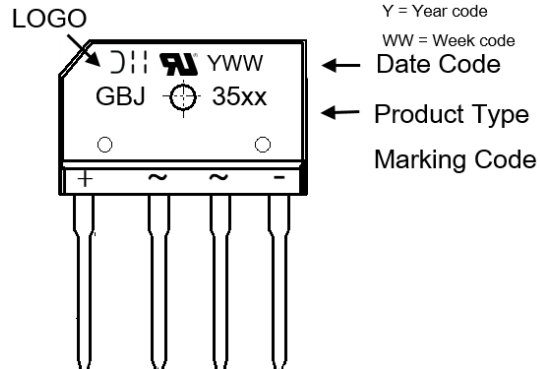


Ordering Information (Note 4)

Orderable Part Number	Package	Packing	
		Qty.	Carrier
GBJ3506	GBJ	15	Tube
GBJ3508	GBJ	15	Tube

- Notes:
- EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
 - 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.
 - Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
 - For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

Marking Information



Maximum Ratings (@ T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	GBJ3506	GBJ3508	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	600	800	V
Average Rectified Output Current T _C = +80°C	I _{F(AV)}	35 3.6		A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load T _J = +25°C	I _{FSM}	400		A
I ² t Rating for Fusing (t = 8.3ms)	I ² t	664		A ² s
Mounting Torque (Recommended Torque: 0.5 N.m)	TOR	0.8		N.m
Operating Temperature Range	T _J	-40 to +150		°C
Storage Temperature Range	T _{STG}	-55 to +150		°C

Electrical Characteristics

Characteristic	Test Conditions	Symbol	Max	Unit
Forward Voltage	I _F = 17.5A T _J = +25°C	V _F	1.1	V
Leakage Current	V _R at Rated T _J = +25°C T _J = +125°C	I _R	10 500	μA
Typical Junction Capacitance (Note 5)		C _J	150	pF

Thermal Characteristics

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance (Note 6)	R _{θJC} R _{θJL}	1.0 1.5	°C/W

Notes: 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 6. Thermal resistance test performed in accordance with JESD-51. Device mounted on 250mm x 250mm x 25mm AL plate heatsink.

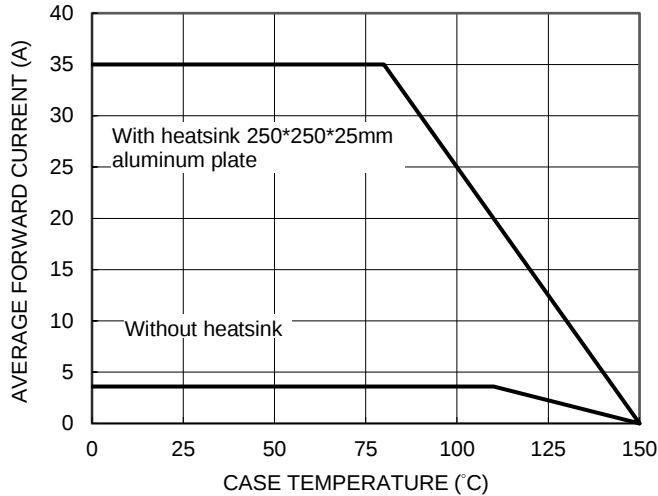


Figure 1. Forward Current De-rating Curve

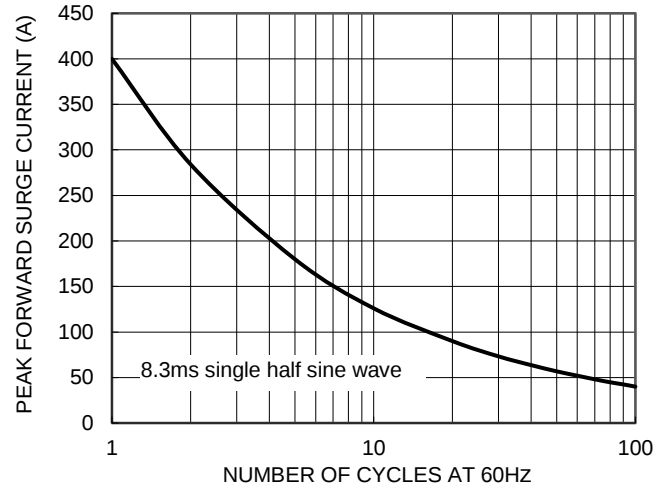


Figure 2. Maximum Non-Repetitive Surge Current

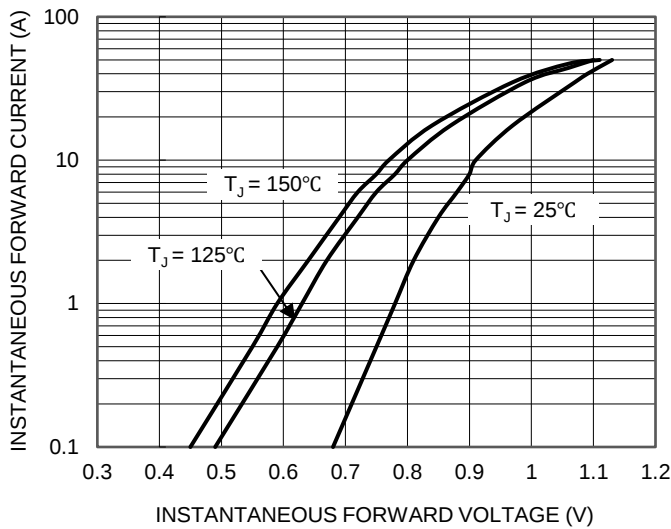


Figure 3. Typical Forward Characteristics

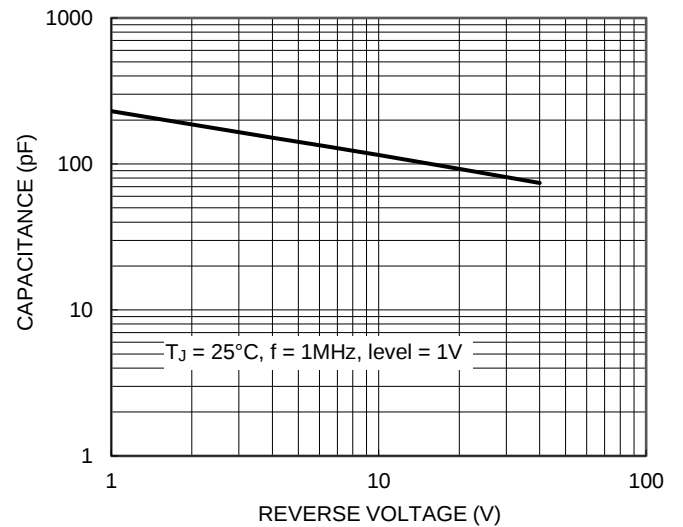


Figure 4. Typical Junction Capacitance

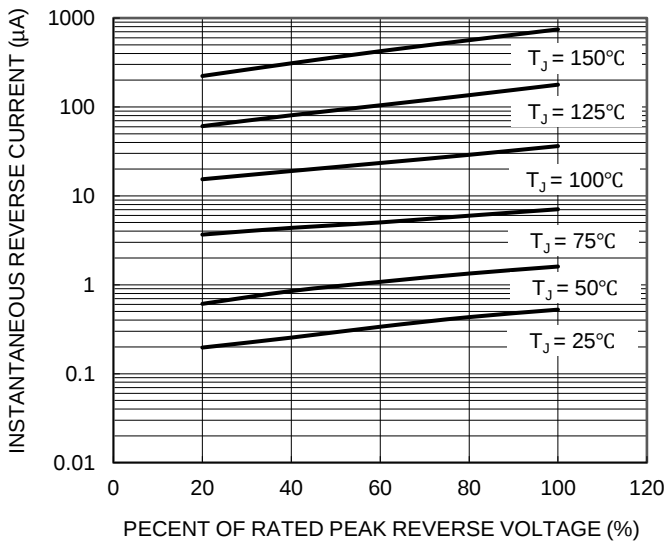


Figure 5. Typical Reverse Characteristics

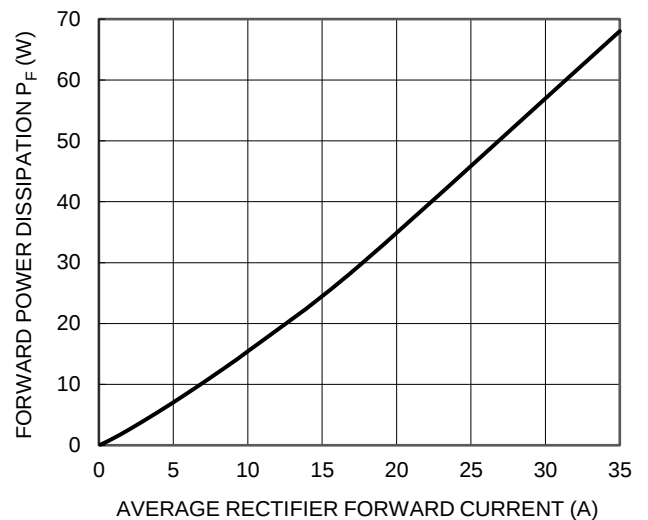
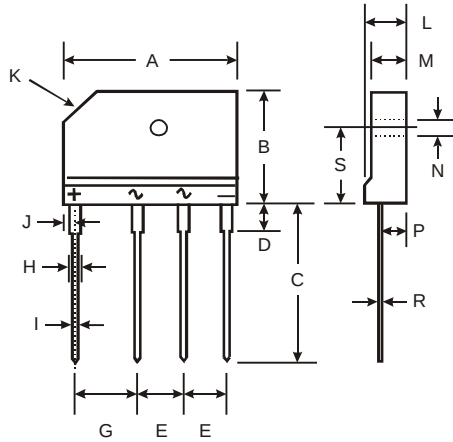


Figure 6. Forward Power Dissipation

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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