Product Summary

V_{RRM} (V)	I_F (A)	V_F Max (V) @ I_F = 7.5A	I_R Max (µA)
600	15	0.90	10

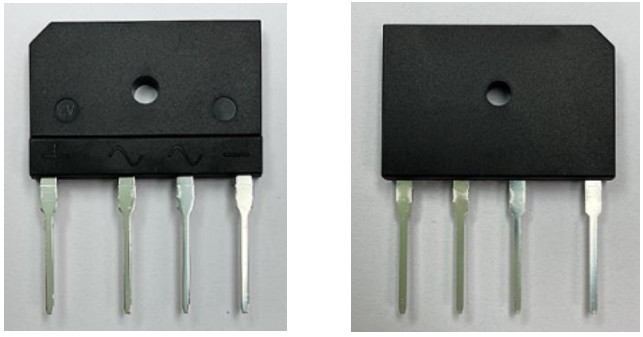
Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Thermal Radiation
- High Average Current
- High Surge Current Capability
- **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 or your local Diodes representative. https://www.diodes.com/quality/product-definitions/**

Mechanical Data

- Package: GBJ
- Package Material: Plastic Material, UL Flammability Classification 94V-0 (No Br. Sb, Cl)
- Terminals: Finish – Matte Tin Plated Leads, Solderable per MIL-STD-202, Method 208 e3
- Polarity Indicator: Symbol Molded on Body
- Weight: 6.60 grams (Approximate)

GBJ

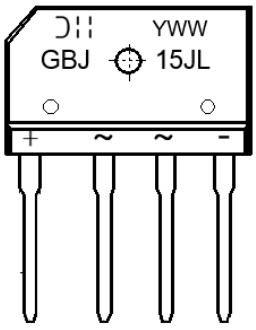


Ordering Information (Note 4)

Part Number	Package	Packing	
		Qty.	Carrier
GBJ15JL-TU	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. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. For packaging details, go to our website at https://www.diodes.com/design/support/packaging/diodes-packaging/.

Marking Information



GBJ15JL= Product Type Marking Code
= Manufacturer's Code Marking
YWW = Date Code Marking
Y = Last Digit of Year (ex: 2 = 2022)
WW = Week Code (01 to 53)

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

Characteristic		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	600	V
Average Rectified Output Current	With Heatsink T_C = +120°C Without Heatsink T_C = +120°C	$I_{F(AV)}$	15 4.5	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	T_J = +25°C T_J = +125°C	I_{FSM}	200 160	A
Peak Forward Surge Current 1.0ms Single Half Sine Wave Superimposed on Rated Load	T_J = +25°C T_J = +125°C	I_{FSM}	400 320	A
I^2t Rating for Fusing (t = 8.3ms)		I^2t	166	A^2s
Operating Temperature Range		T_J	-40 to +150	°C
Storage Temperature Range		T_{STG}	-55 to +150	°C

Electrical Characteristics

Characteristic	Test Conditions		Symbol	Min	Typ	Max	Unit
Breakdown Voltage	I_R = 10μA	T_J = +25°C	V_B	600	—	—	V
Forward Voltage	I_F = 7.5A	T_J = +25°C	V_F	—	0.86	0.90	V
Leakage Current	V_R = 600V	T_J = +25°C	I_R	—	—	10	μA
Typical Junction Capacitance (Note 5)			C_J		80		pF

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance (Note 6)	$R_{\theta JC}$ $R_{\theta JL}$	1.2 2.3	°C/W

Notes: 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Device mounted on 200mm x 200mm x 2mm Cu plate heatsink.

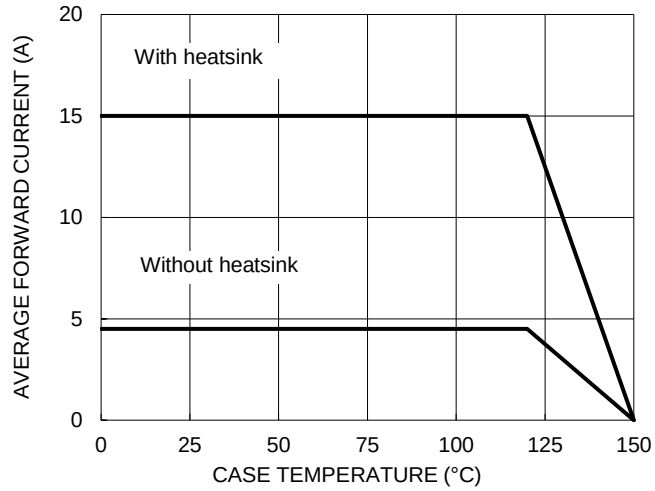


Figure 1. Forward Current Derating Curve

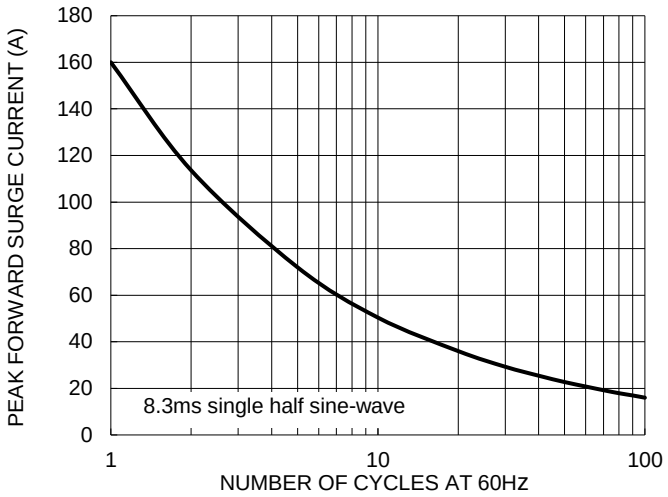


Figure 2. Maximum Non-Repetitive Surge Current

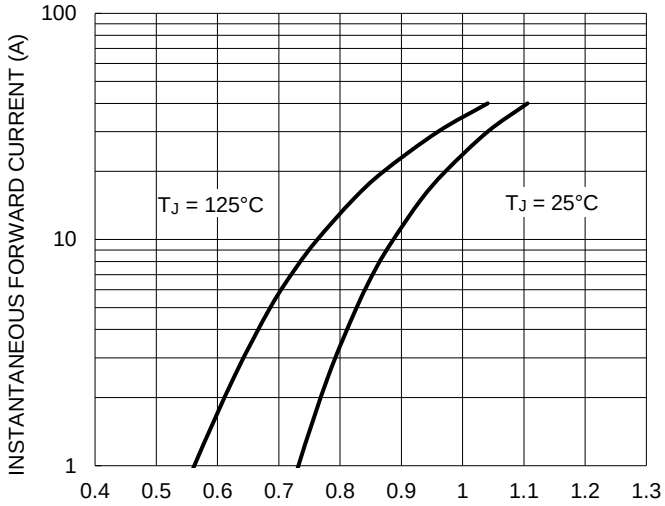


Figure 3. Typcial Forward Characteristics

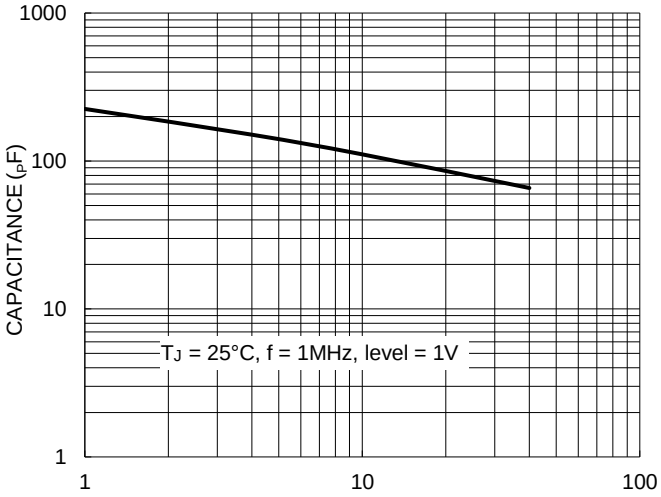


Figure 4. Typical Junction Capactiance

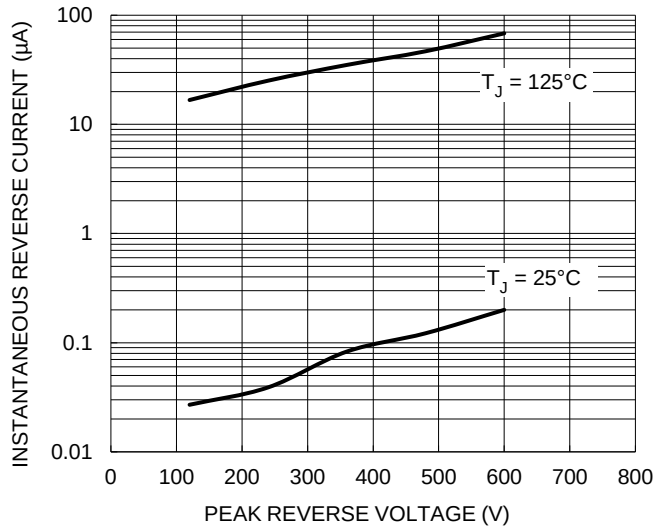


Figure 5. Typical Reverse Characteristics

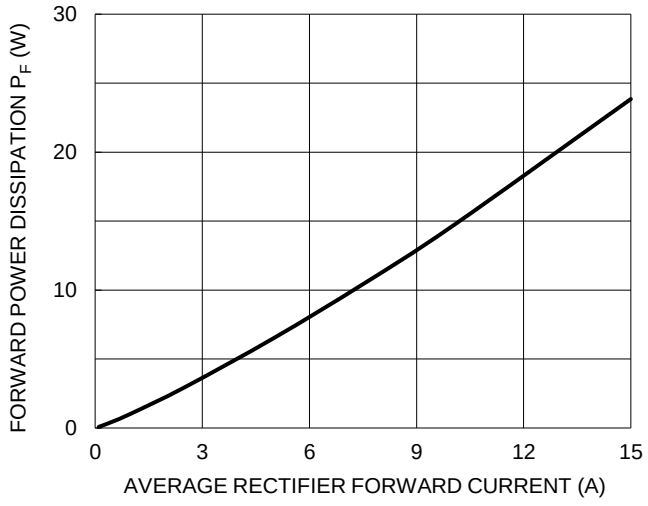
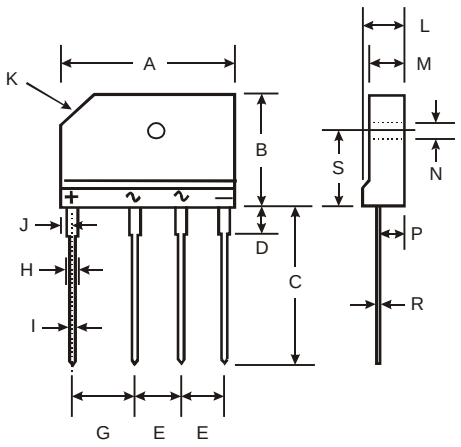


Figure 6. Forward Power Dissipation

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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