

ANTREX Electronics

Electronic Components Sourcing Information

Product Reference Information

Part Number: GBJ2501-F
Manufacturer: Diodes Incorporated
Package: 4-SIP, GBJ
Availability: Please confirm with sales

Product Page:

<https://antrexco.com/product/details/diodes-incorporated/gbj2501-f.html>

Request a Quote:

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Contact Information

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Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

Product Summary

V _{RRM} (V)	I _F (A)	V _F Max (V) @ I _F = 12.5A	I _R Max (μA)
50/100/200/ 400/600/800/ 1000	25	1.05	10

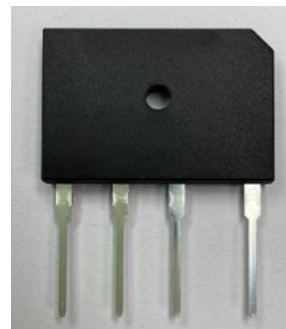
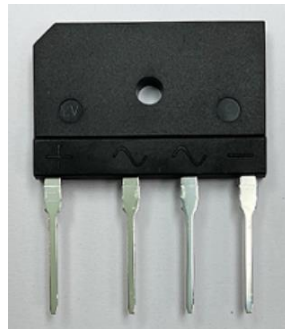
Mechanical Data

- Package: GBJ
- Package Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Plated Leads, Lead-Free Plating (Tin Finish). 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: Type Number
- Weight: 6.6 grams (Approximate)

Features

- Glass Passivated Die Construction
- High Case Dielectric Strength of 2500V_{RMS}
- Low Reverse Leakage Current
- Surge Overload Rating to 350A 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](https://www.diodes.com/quality/product-definitions/) or your local Diodes representative.**

GBJ

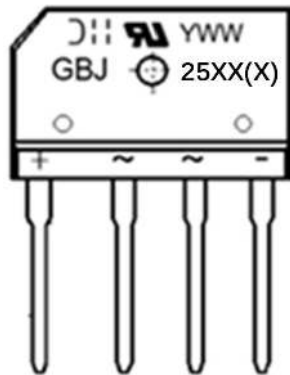


Ordering Information (Note 3)

Orderable Part Number	Package	Packing	
		Qty.	Carrier
GBJ25005-F	GBJ	15	Tube
GBJ2501-F	GBJ	15	Tube
GBJ2502-F	GBJ	15	Tube
GBJ2504-F	GBJ	15	Tube
GBJ2506-F	GBJ	15	Tube
GBJ2508-F	GBJ	15	Tube
GBJ2510-F	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.
 - For packaging details, go to our website at <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

Marking Information



GBJ25XX = Product Type Marking Code, ex: GBJ2501, GBJ2502, GBJ2504, GBJ2506, GBJ2508, GBJ2510
 GBJ25XXX = Product Type Marking Code, ex: GBJ25005
 JII = 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.)

Characteristic	Symbol	GBJ25005	GBJ2501	GBJ2502	GBJ2504	GBJ2506	GBJ2508	GBJ2510	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	V
Average Rectified Output Current with Heatsink (Note 4) @ T _J = +150°C	I _{F(AV)}	25							A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	350							A
I ² t Rating for Fusing (t = 8.3ms)	I ² t	510							A ² s
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

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

Characteristic	Test Conditions	Symbol	Min	Typ	Max	Unit
Breakdown Voltage	I _R = 10μA, T _J = +25°C	V _B	50/100/200/400 /600/800/1000	—	—	V
Forward Voltage	I _F = 12.5A, T _J = +25°C	V _F	—	—	1.05	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 _T	85			pF

Thermal Characteristics

Characteristic	Symbol	Typ	Unit
Typical Thermal Resistance Junction to Case (Note 4)	R _{θJC}	1.0	°C/W

Notes: 4. Thermal resistance from junction to case per element. Unit mounted on 250mm x 250mm x 20mm aluminum plate heatsink.
 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

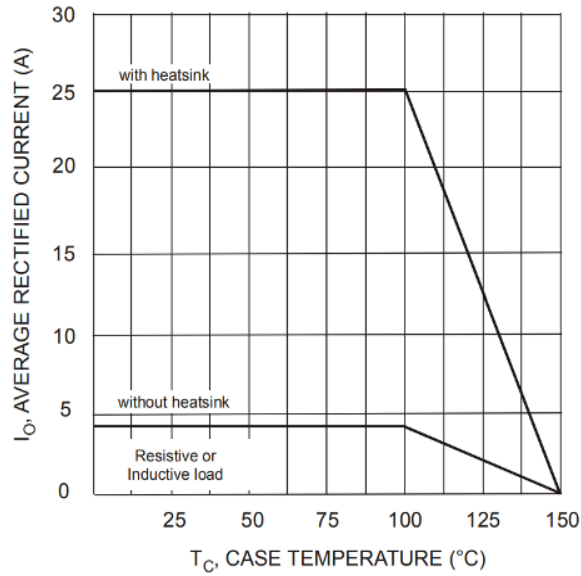


Fig. 1 Forward Current Derating Curve

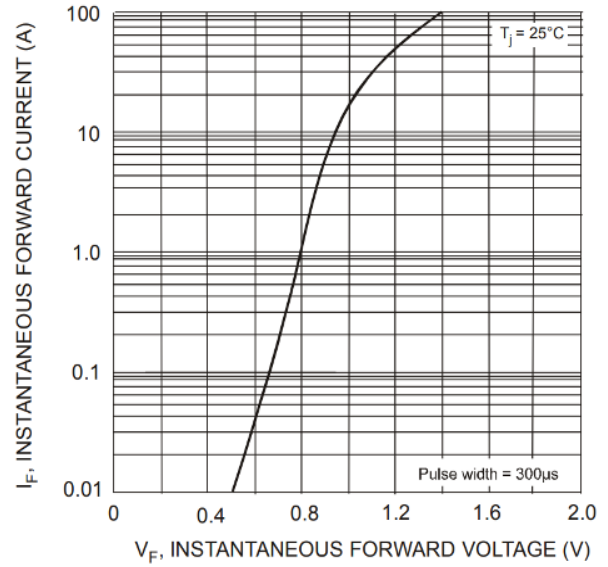


Fig. 2 Typical Forward Characteristics, Per Element

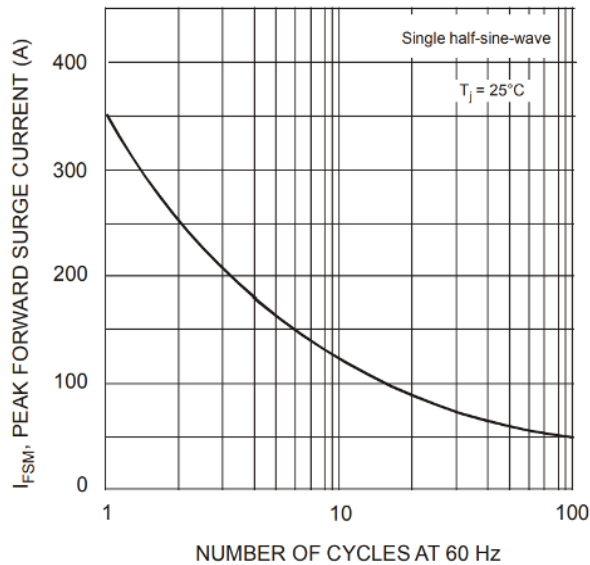


Fig. 3 Maximum Non-Repetitive Surge Current

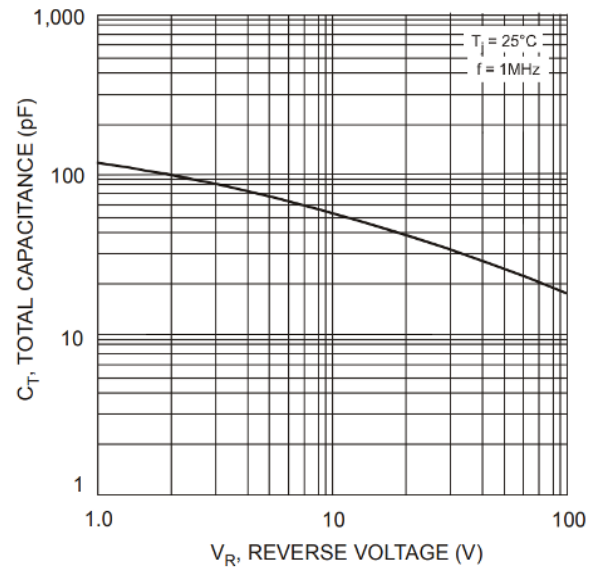


Fig. 4 Typical Total Capacitance, Per Element

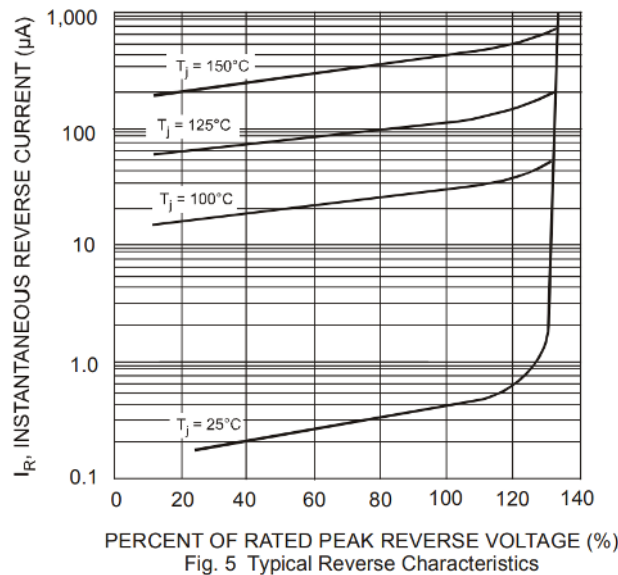
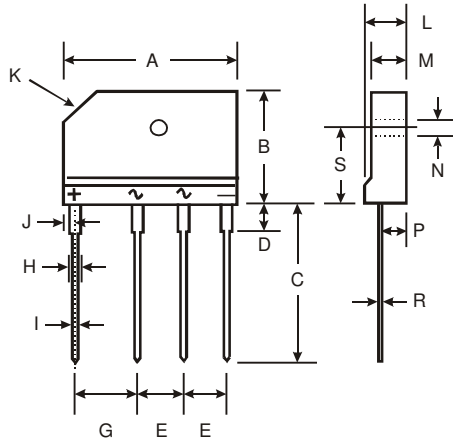


Fig. 5 Typical Reverse Characteristics

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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