EVVOSEMI®
THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

Domestic Part Number	GBU8005 THRU GBU810
Overseas Part Number	GBU8005 THRU GBU810
Equivalent Part Number	GBU8005 THRU GBU810

EVVOSEMI®
THINK CHANGE DO

GBU Plastic-Encapsulate Bridge Rectifier

● Features

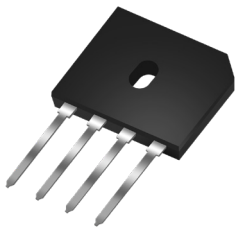
- Ideal for printed circuit board
- Small size, simple installation
- High surge current capability
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260/10 seconds at 5lbs., (2.3kg) tension

Reverse Voltage
50-1000 V
Forward Current
8.0 Ampere

● Applications

General purpose 1 phase Bridgerectifier applications

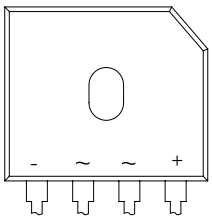
GBU

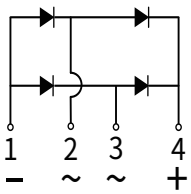


● Mechanical Data

- Case: GBU
  Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

● Function Diagram





● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GBU8005	GBU801	GBU802	GBU804	GBU806	GBU808	GBU810
Device marking code			GBU8005	GBU801	GBU802	GBU804	GBU806	GBU808	GBU810
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	8.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	175						
Rating for fusing (t=8.3ms, Ta=25 °C)	I^2t	A^2S	127.09						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	25						
	$R_{\theta J-C}$	°C /W	2.3						

● Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	GBU8005	GBU801	GBU802	GBU804	GBU806	GBU808	GBU810
Maximum instantaneous forward voltage	I_F=8A	V_F	V	1.1						
Maximum DC reverse currentat rated DC blocking voltage	V_R=V_{DC}, T_A=25°C	I_{R1}	μA	10						
	V_R=V_{DC}, T_A=100°C	I_{R2}		500						
Typical junction capacitance	4.0V DC,1MHz	C_J	pF	250						

● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

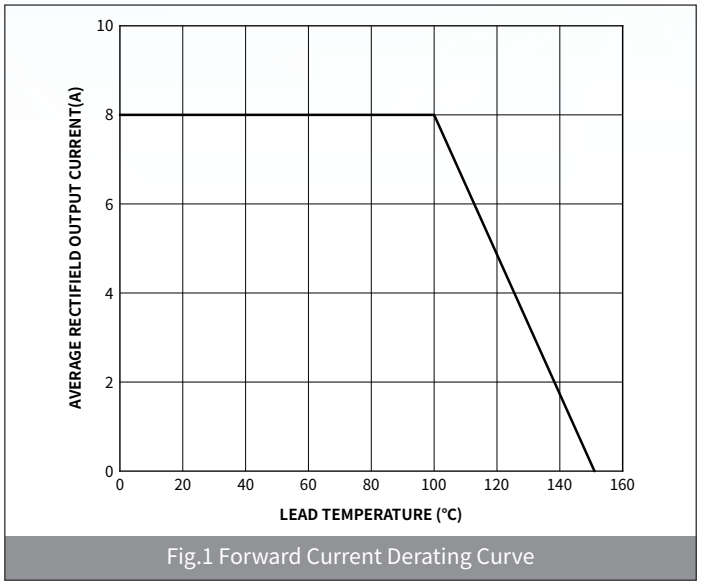


Fig.1 Forward Current Derating Curve

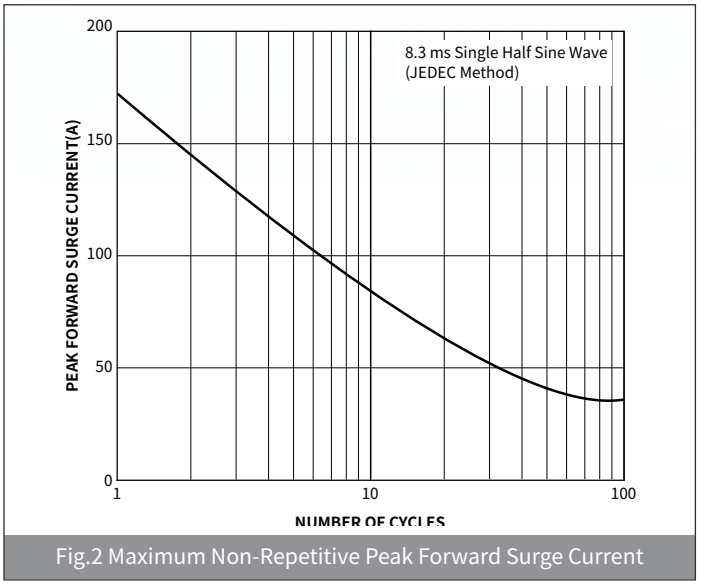


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

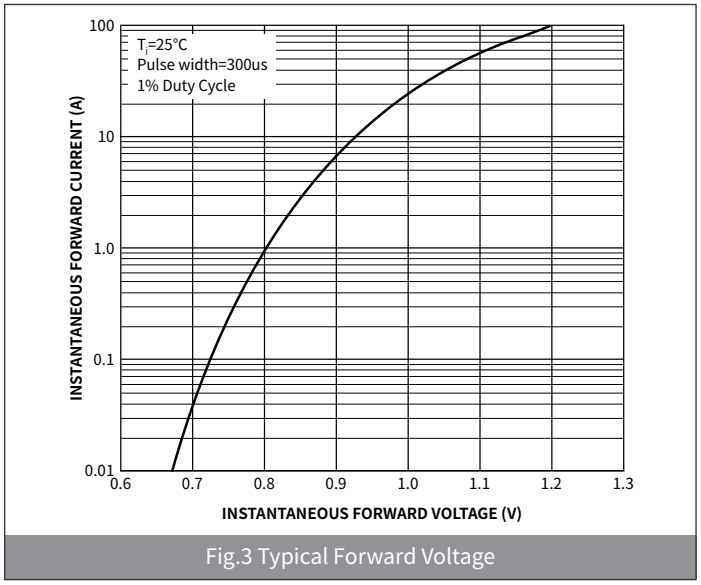


Fig.3 Typical Forward Voltage

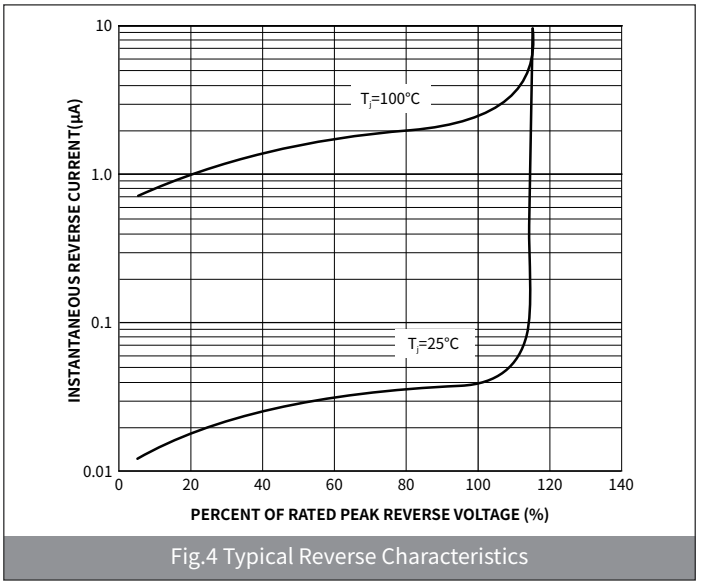
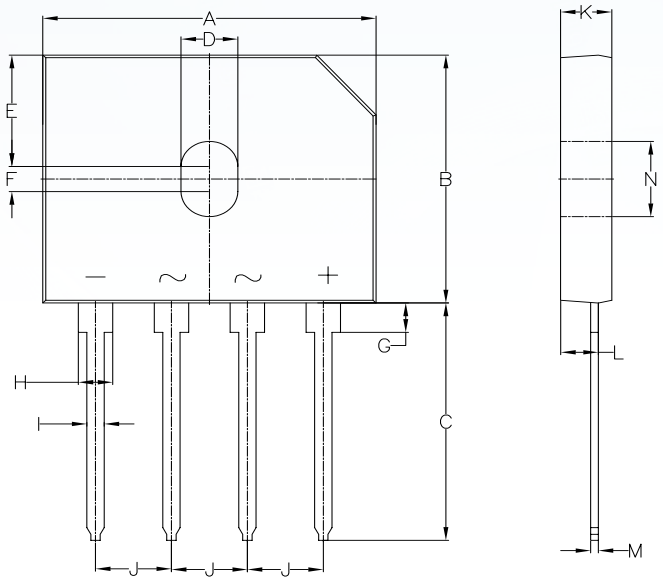


Fig.4 Typical Reverse Characteristics

● Ordering Information

PACKAGE	UNIT WEIGHT(g)	BOX(pcs)	CARTON(pcs)
GBU	3.78	250	2500

● Package Outline Dimensions (GBU)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	21.80	22.30	0.858	0.878
B	18.30	18.80	0.720	0.740
C	17.50	18.00	0.689	0.708
D	3.50	4.10	0.138	0.161
E	7.40	7.90	0.291	0.311
F	1.65	2.16	0.065	0.085
G	1.91	2.54	0.075	0.100
H	2.06	2.54	0.081	0.100
I	1.02	1.27	0.040	0.050
J	4.83	5.33	0.190	0.210
K	3.30	3.56	0.130	0.140
L	2.40	2.66	0.094	0.104
M	0.46	0.56	0.018	0.022
N	5.60	6.00	0.220	0.236

Disclaimer

EVVOSEMI ("EVVO") reserves the right to make corrections, enhancements, improvements, and other changes to its products and services at any time, and to discontinue any product or service without notice.

EVVO warrants the performance of its hardware products to the specifications applicable at the time of sale in accordance with its standard warranty. Testing and other quality control techniques are used as deemed necessary by EVVO to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

Customers should obtain and confirm the latest product information and specifications before final design, purchase, or use. EVVO makes no warranty, representation, or guarantee regarding the suitability of its products for any particular purpose, nor does EVVO assume any liability for application assistance or customer product design. EVVO does not warrant or accept any liability for products that are purchased or used for any unintended or unauthorized application.

EVVO products are not authorized for use as critical components in life support devices or systems without the express written approval of EVVOSEMI.

The EVVO logo and EVVOSEMI are trademarks of EVVOSEMI or its subsidiaries in relevant jurisdictions. EVVO reserves the right to make changes without further notice to any products herein.