EVVOSEMI®

THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

Domestic Part Number	GBU6005 THRU GBU610
Overseas Part Number	GBU6005 THRU GBU610
Equivalent Part Number	GBU6005 THRU GBU610

GBU Plastic-Encapsulate Bridge Rectifier

Features

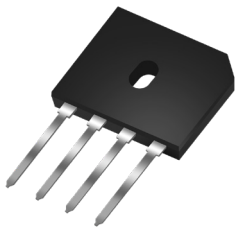
- Ideal for printed circuit board
- Small size, simple installation
- High surge current capability
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260/10 seconds at 5lbs., (2.3kg) tension

Reverse Voltage
50-1000 V
Forward Current
6.0 Ampere

Applications

General purpose 1 phase Bridgerectifier applications

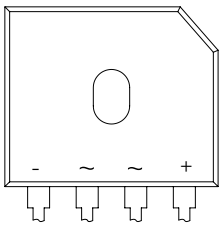
GBU

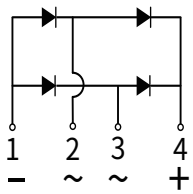


Mechanical Data

- 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	GBU6005	GBU601	GBU602	GBU604	GBU606	GBU608	GBU610
Device marking code			GBU6005	GBU601	GBU602	GBU604	GBU606	GBU608	GBU610
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	6.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	150						
Rating for fusing (t=8.3ms, Ta=25 °C)	I^2t	A^2S	93.37						
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	GBU6005	GBU601	GBU602	GBU604	GBU606	GBU608	GBU610
Maximum instantaneous forward voltage	I_F=3A	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)

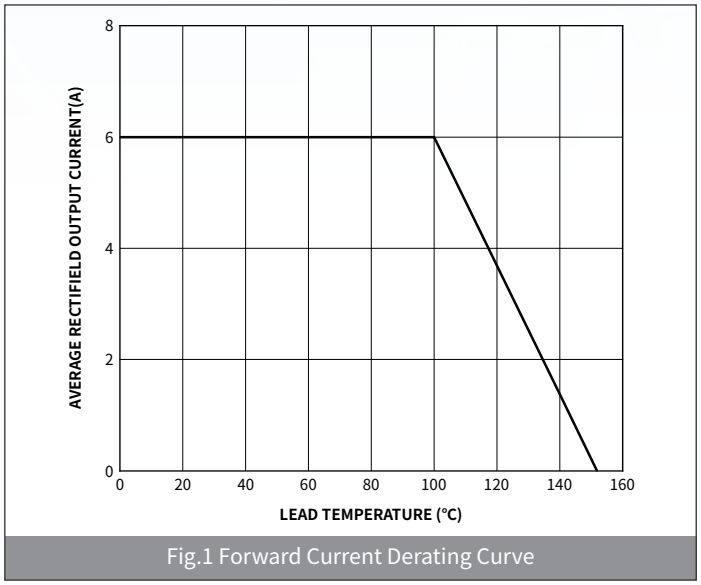


Fig.1 Forward Current Derating Curve

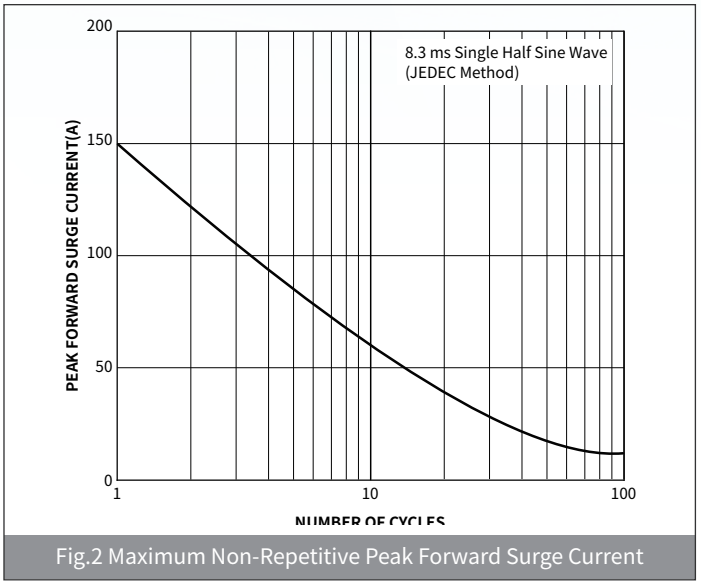


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

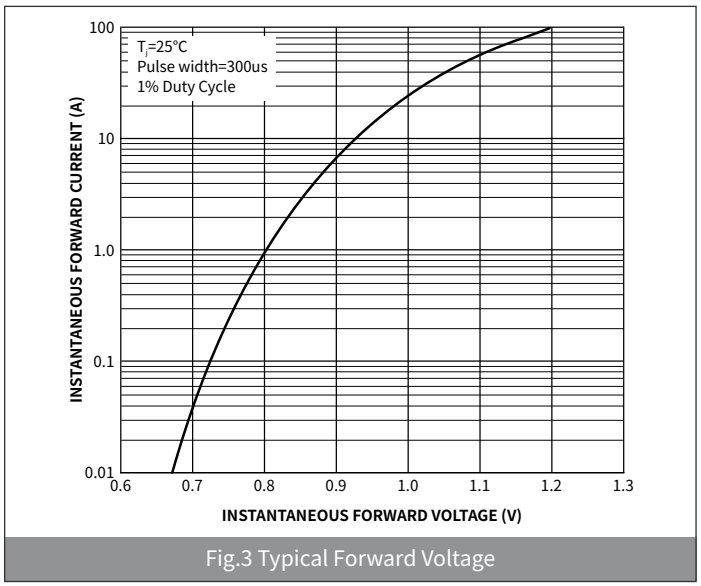


Fig.3 Typical Forward Voltage

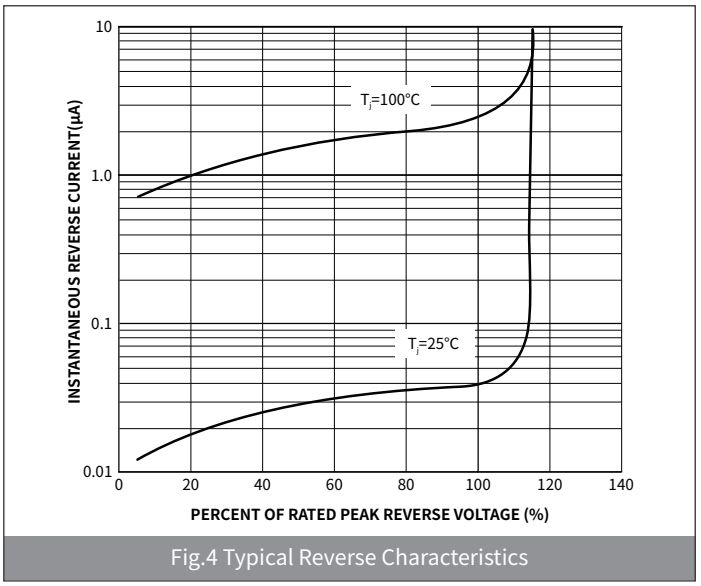
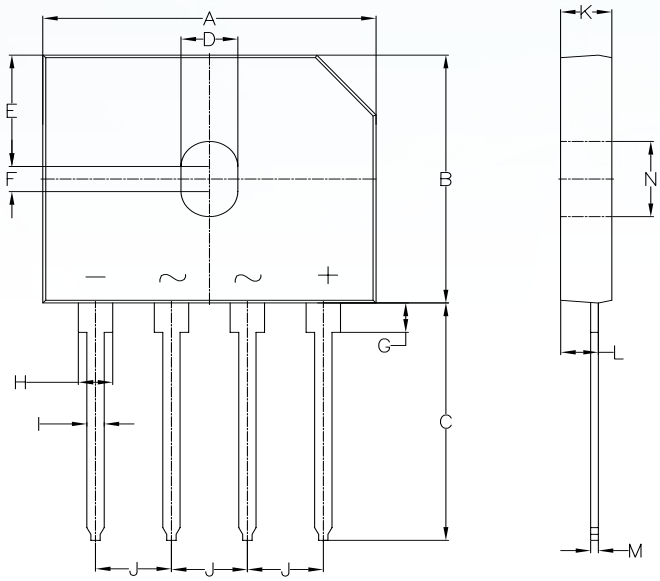


Fig.4 Typical Reverse Characteristics

● 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

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