GBU4A - GBU4M

Bridge Rectifiers

Features

- Glass−Passivated Junction
- Surge Overload Rating: 150 A Peak
- Reliable Low−Cost Construction Utilizing Molded Plastic Technique
- Ideal for Printed Circuit Board
- UL Certified: UL #E258596

PACKAGE MARKING AND ORDERING INFORMATION

Part Number	Marking	Package	Packing Method
GBU4A	GBU4A	GBU 4L	Rail
GBU4B	GBU4B		
GBU4D	GBU4D		
GBU4G	GBU4G		
GBU4J	GBU4J		
GBU4K	GBU4K		
GBU4M	GBU4M		

ON Semiconductor®

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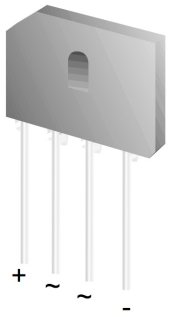

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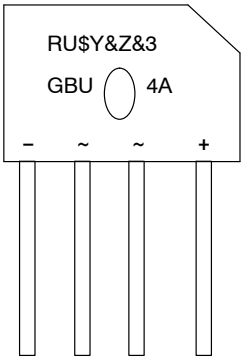
MARKING DIAGRAM



RU	= UL Marking
$Y	= ON Semiconductor Logo
&Z	= Assembly Plant Code
&3	= Numeric Date Code
GBU4A	= Specific Device Code

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted) (Note 1)

Symbol	Parameter		Value							Units
			4A	4B	4D	4G	4J	4K	4M	
V_{RRM}	Maximum Repetitive Reverse Voltage		50	100	200	400	600	800	1000	V
V_{RMS}	Maximum RMS Bridge Input Voltage		35	70	140	280	420	560	700	V
V_R	DC Reverse Voltage (Rated V_R)		50	100	200	400	600	800	1000	V
$I_{F(AV)}$	Average Rectified Forward Current	T_A = 100°C	4.0							A
		T_A = 40°C	3.0							A
I_{FSM}	Non−Repetitive Peak Forward Surge Current 8.3 ms Single Half−Sine−Wave		150							A
T_{STG}	Storage Temperature Range		−55 to +150							°C
T_J	Operating Junction Temperature		−55 to +150							°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

1. These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

THERMAL CHARECTERISTICS (T_A = 25°C unless otherwise noted)

Symbol	Parameter	Value	Units
P_D	Power Dissipation	8	W
$R_{\theta JA}$	Thermal Resistance per Leg, Junction to Ambient (Note 2)	19	°C/W

2. Device mounted on PCB with 0.5 × 0.5 inch (12 × 12 mm)

ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise noted)

Symbol	Parameter		Value	Units
V_F	Forward Voltage, per Element at 4.0 A		1.0	V
I_R	Reverse Current, per Element at Rated V_R	T_A = 25°C	5.0	μA
		T_A = 125°C	500	μA
I^2t	I^2t Rating for Fusing		93	A^2s

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

TYPICAL PERFORMANCE CHARACTERISTICS

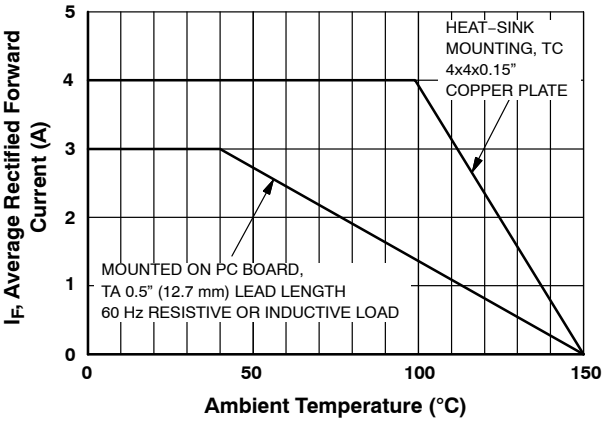


Figure 1. Forward Current Derating Curve

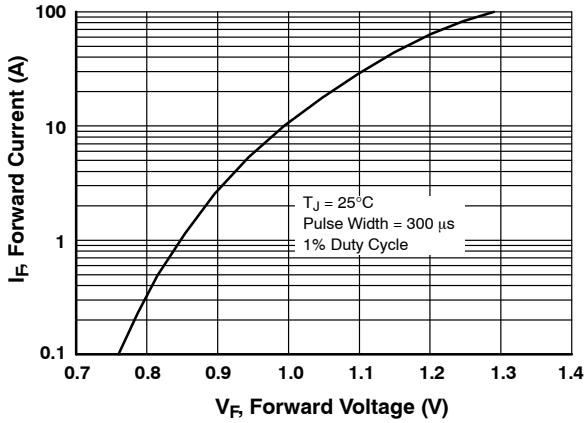


Figure 2. Forward Voltage Characteristics

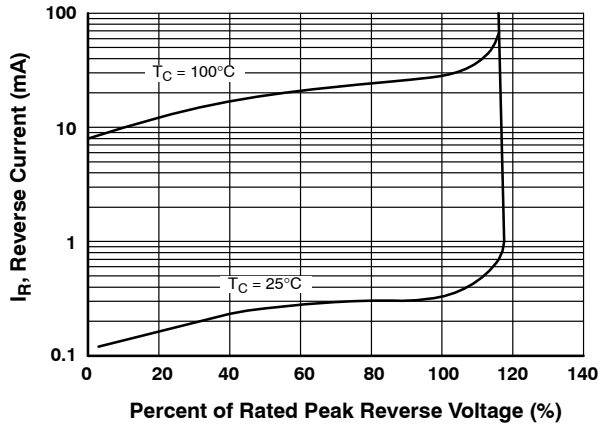


Figure 3. Reverse Current vs. Reverse Voltage

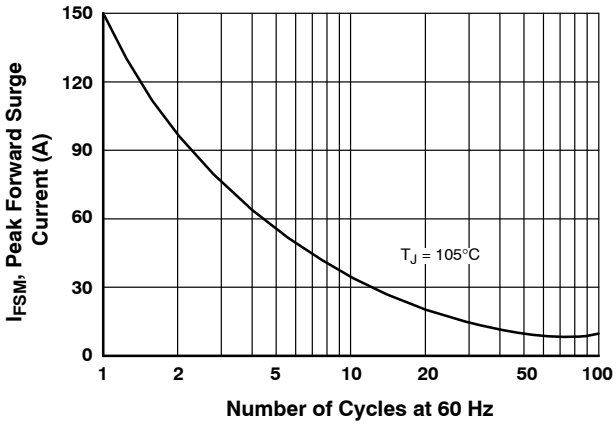


Figure 4. Non−Repetitive Surge Current

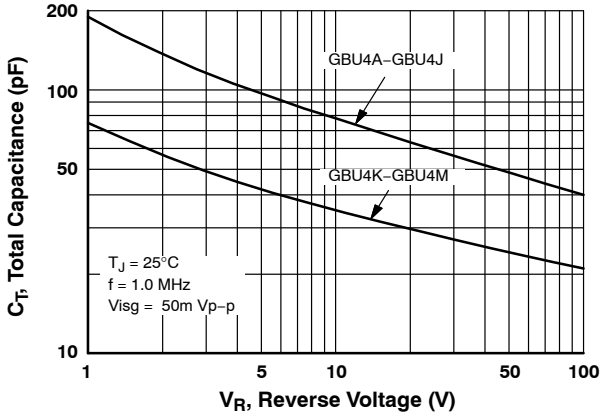


Figure 5. Total Capacitance

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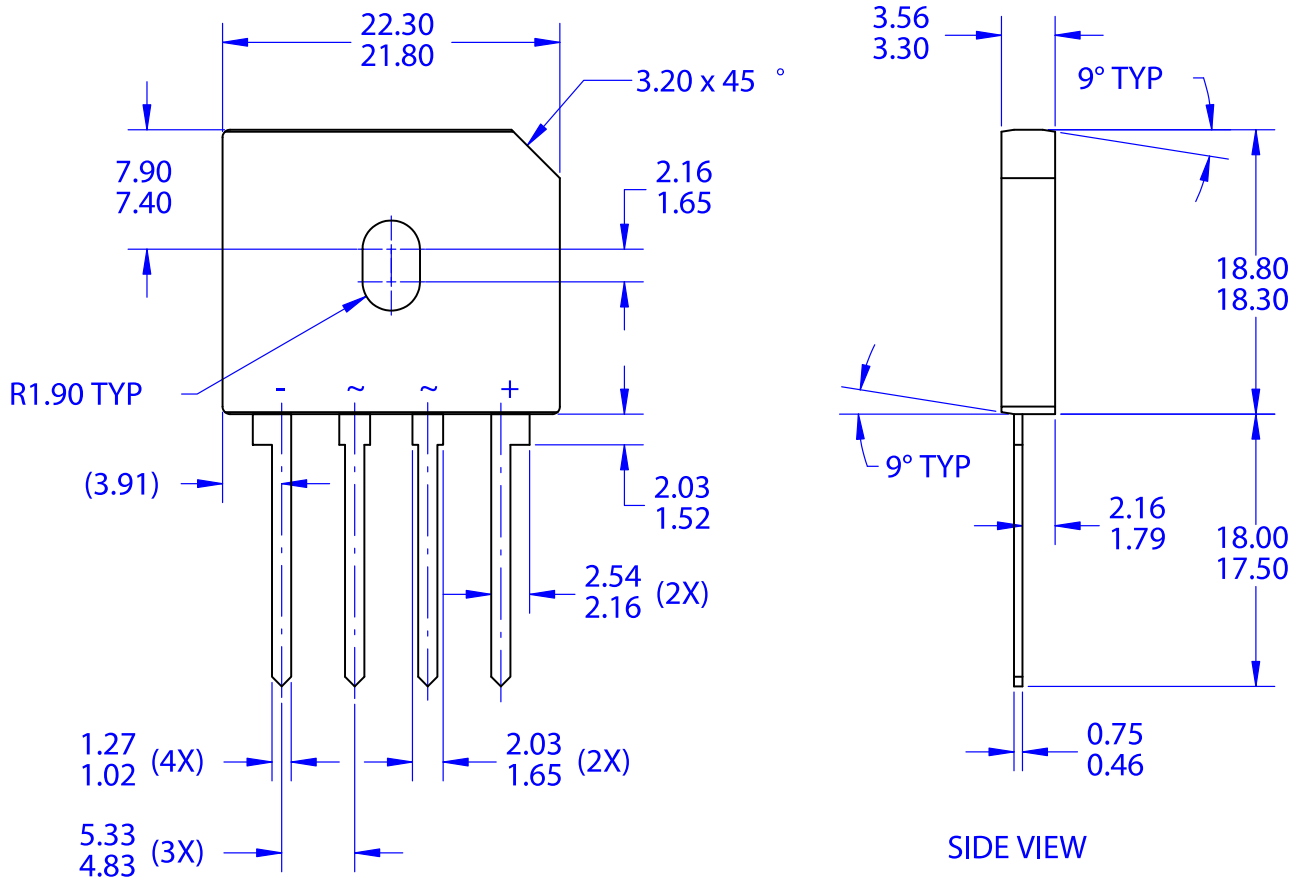

NOTES:

A. NO INDUSTRY STANDARD APPLIES TO THIS PACKAGE
B. ALL DIMENSIONS ARE IN MILLIMETERS
C. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
D. DIMENSIONS AND TOLERANCES AS PER ASME Y14.5-2009

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PUBLICATION ORDERING INFORMATION

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