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October 2016

GBU8KS
Bridge Rectifier

Features

- Short Lead GBU Option - see drawing for spec
- Glass-Passivated Junction
- Surge Overload Rating: 200 A Peak
- Reliable Low-Cost Construction Utilizing Molded Plastic Technique
- Ideal for Printed Circuit Board
- UL Certified: UL #E258596

Ordering Informations

Part Number	Marking	Package	Packing Method
GBU8KS	GBU8KS	GBU 4L (Short Lead)	Rail

Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at T_A = 25°C unless otherwise noted.

Symbol	Parameter		Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage		800	V
V_{RMS}	Maximum RMS Bridge Input Voltage		560	V
V_R	DC Reverse Voltage (Rated V_R)		800	V
$I_{F(AV)}$	Average Rectified Forward Current	T_C = 100°C	8.0	A
		T_A = 45°C	6.0	A
I_{FSM}	Non-Repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave		200	A
T_{STG}	Storage Temperature Range		-55 to +150	°C
T_J	Operating Junction Temperature		-55 to +150	°C

Thermal Characteristics

Values are at T_A = 25°C unless otherwise noted.

Symbol	Parameter	Value	Units
P_D	Power Dissipation	16	W
$R_{\theta JA}$	Thermal Resistance per Leg, Junction to Ambient(1)	18	°C/W
$R_{\theta JC}$	Thermal Resistance per Leg, Junction to Case(2)	3	°C/W

Notes:

1. Device mounted on PCB with 0.5 × 0.5 inch (12 × 12 mm).
2. Heat-sink mounting, 4 x 4 x 0.15 inch copper plate.

Electrical Characteristics

Values are at T_A = 25°C unless otherwise noted.

Symbol	Parameter		Value	Units
V_F	Forward Voltage, per Element	8.0 A	1.0	V
I_R	Reverse Current, per Element at Rated V_R	T_A = 25°C	5.0	μA
		T_A = 100°C	500	μA
I^2t	I^2t Rating for Fusing	t < 8.35 ms	166	A^2s

Typical Performance Characteristics

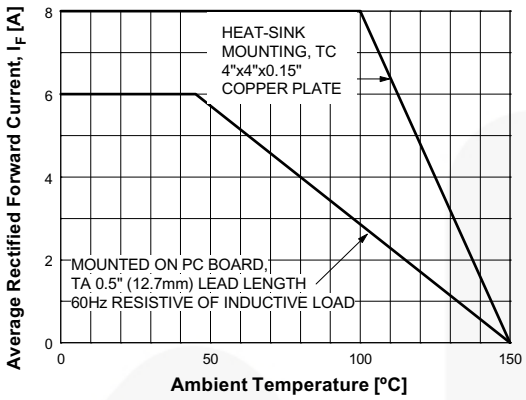


Figure 1. Forward Current Derating Curve

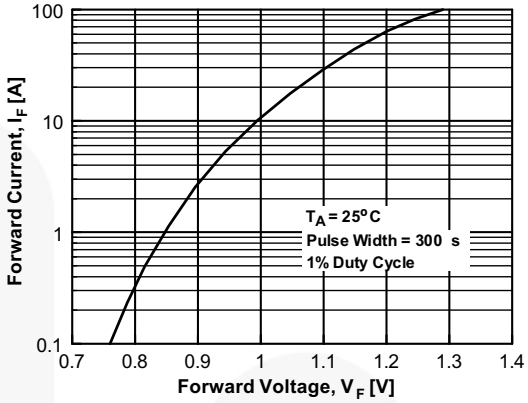


Figure 2. Forward Voltage Characteristics

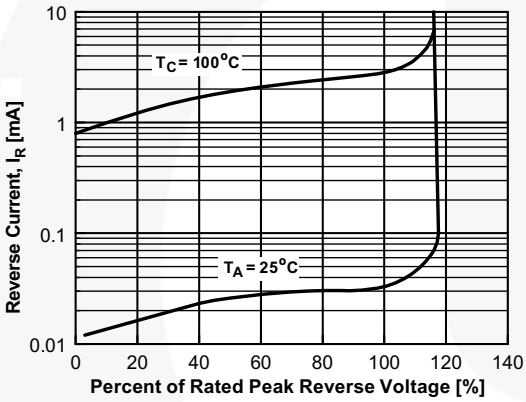


Figure 3. Reverse Current vs. Reverse Voltage

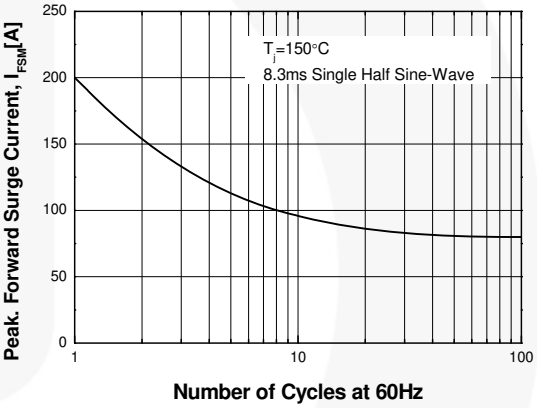


Figure 4. Non-Repetitive Surge Current

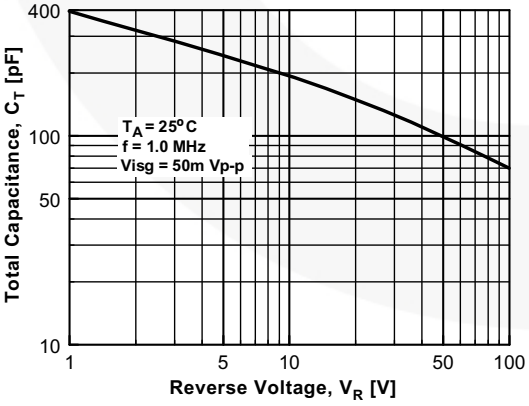
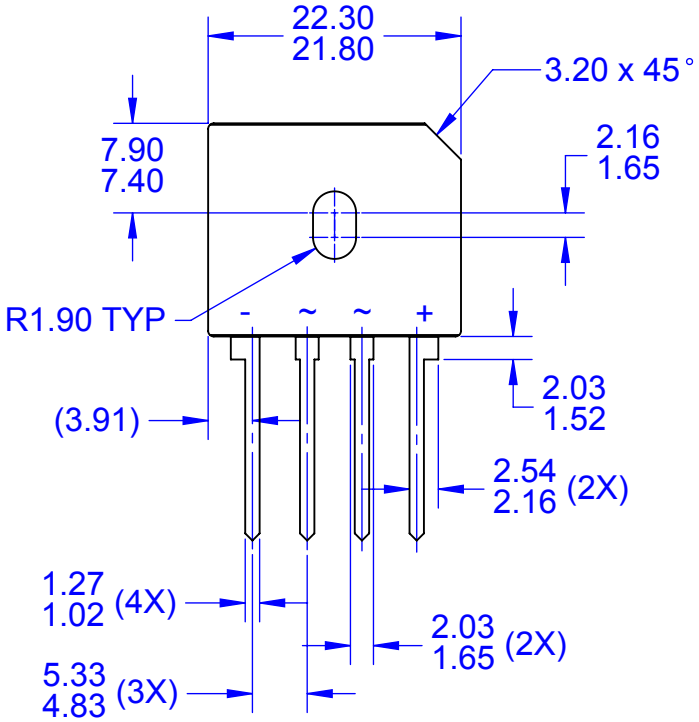
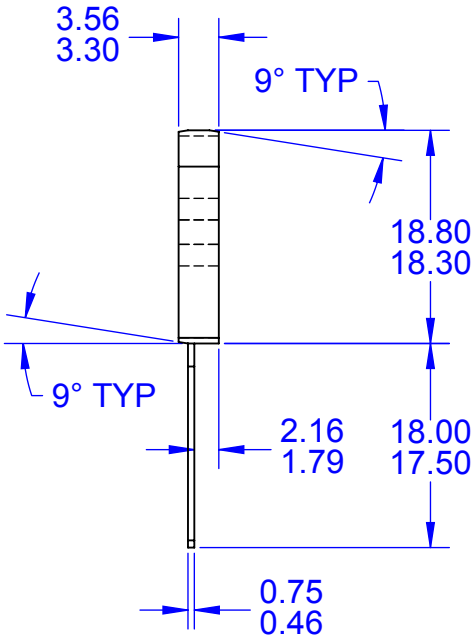


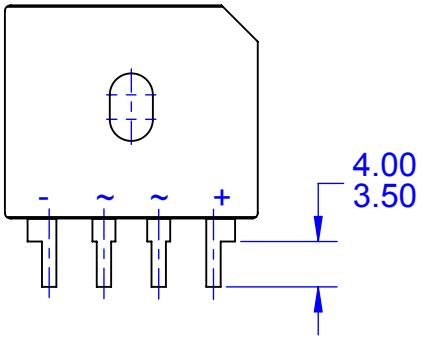
Figure 5. Total Capacitance



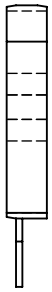
TOP VIEW



SIDE VIEW



TOP VIEW - SHORT LEAD OPTION



SIDE VIEW

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
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