

# GBU20A~GBU20M

## BRIDGE RECTIFIERS

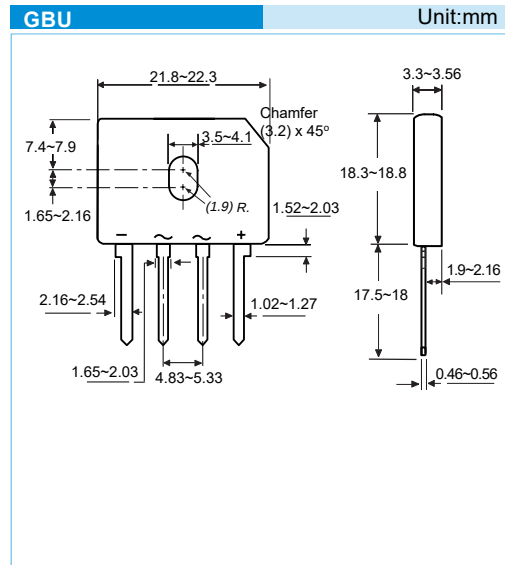
**VOLTAGE** 50 to 1000 Volt **CURRENT** 20 Ampere

### FEATURES

- Glass passivated chip junction
- High surge current capability
- High Current Capability
- Ideal for Printed Circuit Boards
- Lead free in compliance with EU RoHS

### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

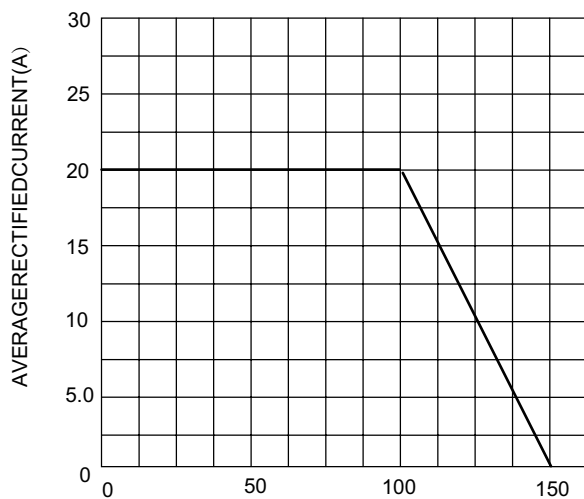
| PARAMETER                                                                           | SYMBOL          | GBU20A      | GBU20B | GBU20D | GBU20G | GBU20J | GBU20K | GBU20M | UNITS           |
|-------------------------------------------------------------------------------------|-----------------|-------------|--------|--------|--------|--------|--------|--------|-----------------|
| Maximum Recurrent Peak Reverse Voltage                                              | $V_{RRM}$       | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V               |
| Maximum RMS Voltage                                                                 | $V_{RMS}$       | 35          | 70     | 140    | 280    | 420    | 560    | 700    | V               |
| Maximum DC Blocking Voltage                                                         | $V_{DC}$        | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V               |
| Maximum Average Forward Current (see FIG.1)                                         | $I_{F(AV)}$     | 20          |        |        |        |        |        |        | A               |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | $I_{FSM}$       | 240         |        |        |        |        |        |        | A               |
| Maximum Forward Voltage at 10 A                                                     | $V_F$           | 1.05        |        |        |        |        |        |        | V               |
| Maximum DC Reverse Current at<br>Rated DC Blocking Voltage                          | $I_R$           | 10<br>500   |        |        |        |        |        |        | $\mu A$         |
| Thermal Resistance(Note1)                                                           | $R_{\theta JC}$ | 2.2         |        |        |        |        |        |        | $^{\circ}C / W$ |
| Typical Junction Capacitance(Note2)                                                 | $C_J$           | 70          |        |        |        |        |        |        | pF              |
| Operating Junction Temperature Range                                                | $T_J$           | -55 to +150 |        |        |        |        |        |        | $^{\circ}C$     |
| Storage Temperature Range                                                           | $T_{STG}$       | -55 to +150 |        |        |        |        |        |        | $^{\circ}C$     |

#### NOTES:

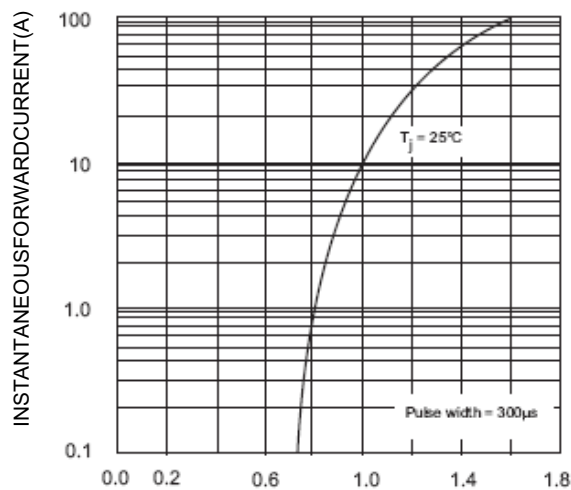
1. Device mounted on 4 x 6 x 0.25" Al-plate heatsink.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

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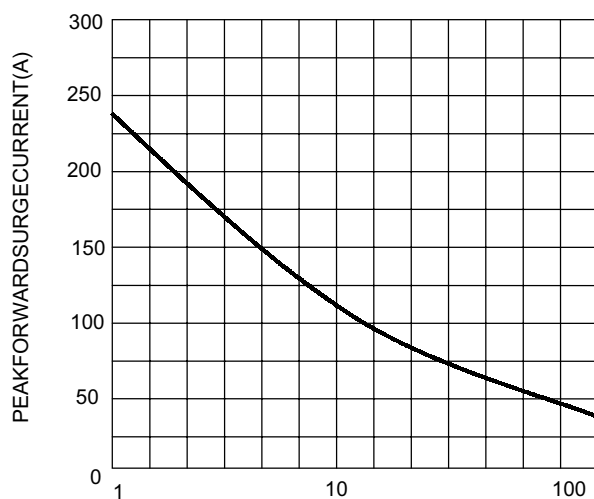
## RATING AND CHARACTERISTIC CURVES



$T_C$ , CASE TEMPERATURE ( $^{\circ}C$ )  
Fig. 1 Forward Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz  
Fig. 3 Maximum Non-Repetitive Surge Current

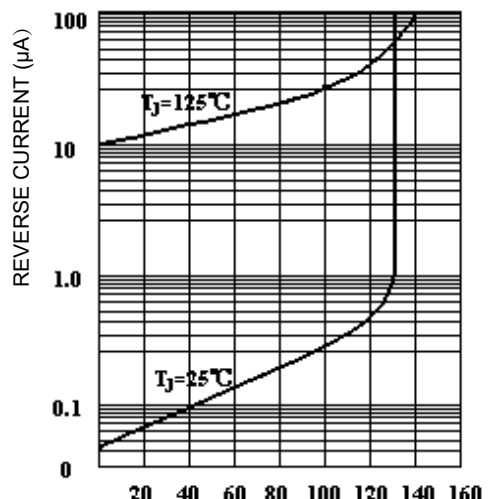
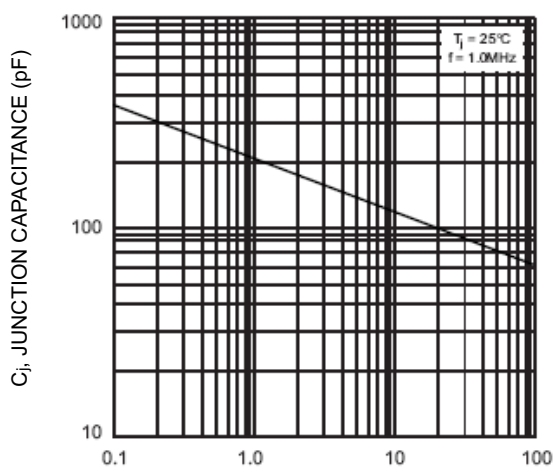


Fig. 4 Reverse Characteristics



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 5 Typical Junction Capacitance

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### ORDER INFORMATION

- Packing information

| Part Number   | Case | DELIVERY MODE | QUANTITY |
|---------------|------|---------------|----------|
| GBU20A~GBU20M | GBU  | BULK          | 2000/Ctn |