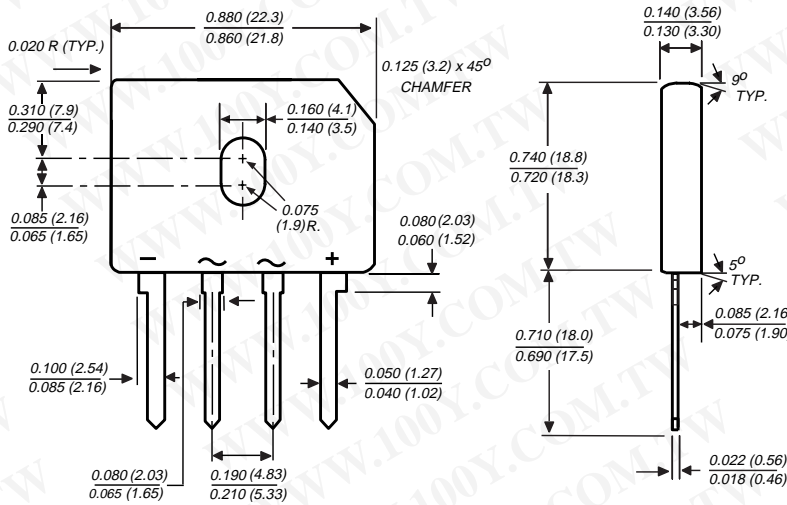


### Case GBU

### Glass Passivated Single Phase Bridge Rectifiers



Dimensions in inches and (millimeters)

**Reverse Voltage** 200 to 1000V  
**Forward current** 10 Amp

### Features

- Glass passivated die construction
- Ideal for printed circuit boards
- Plastic material used carries UL flammability recognition 94V-0
- High surge current capability
- High case dielectric strength of 1500 V<sub>RMS</sub>
- High temperature soldering guaranteed: 265°C /10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension

SMSC Catalog Number	Maximum Repetitive Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GBU10D	200V	140V	200V
GBU10G	400V	280V	400V
GBU10J	600V	420V	600V
GBU10K	800V	560V	800V
GBU10M	1000V	700V	1000V

### Mechanical Data

**Case:** Molded plastic case  
**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026  
**Polarity:** Marked on Body  
**Mounting Position:** Any  
**Weight:** 0.15 oz., 4.0 g

### Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

Maximum average forward output rectified current Tc = 50°C	I <sub>F(AV)</sub>	10	A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200	A
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	166	A <sup>2</sup> sec
Maximum thermal resistance per leg	R <sub>θJA</sub> R <sub>θJC</sub>	22 <sup>(1)</sup> 4.2 <sup>(2)</sup>	°C/W
Operating Junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

### Electrical Characteristics (TA = 25°C unless otherwise noted)

Maximum Instantaneous Forward Voltage per leg	V <sub>F</sub>	1.1V	I <sub>FM</sub> = 10A
Maximum DC reverse current at rated DC blocking voltage per leg	I <sub>R</sub>	5.0μA 500μA	T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C

- Notes: (1) Junction to ambient without heatsink  
 (2) Junction to case with heatsink  
 (3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

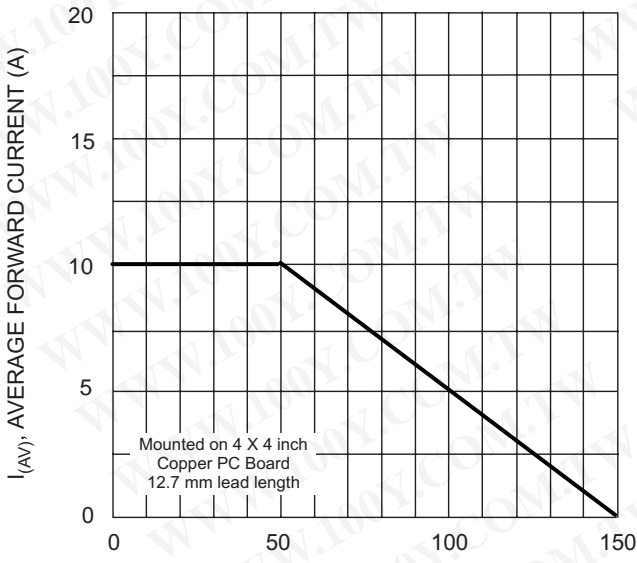


Fig. 1 Forward Current Derating Curve

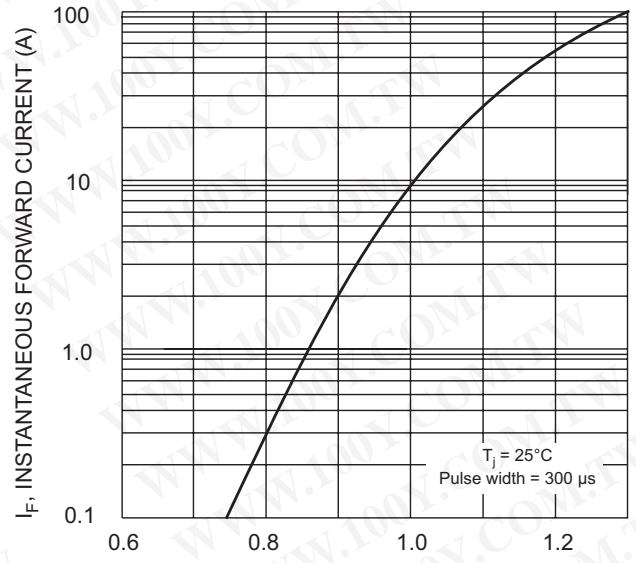


Fig. 2 Typical Forward Characteristics, per element

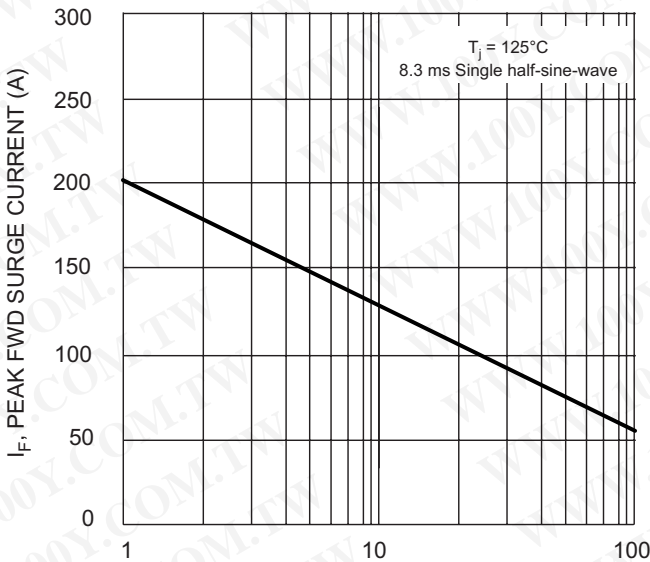


Fig. 3 Max Non-Repetitive Forward Surge Current

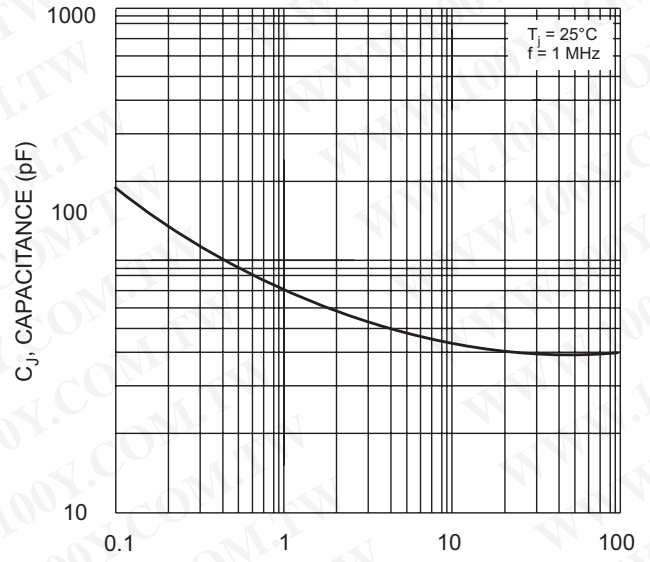


Fig. 4 Typ Junction Capacitance per element

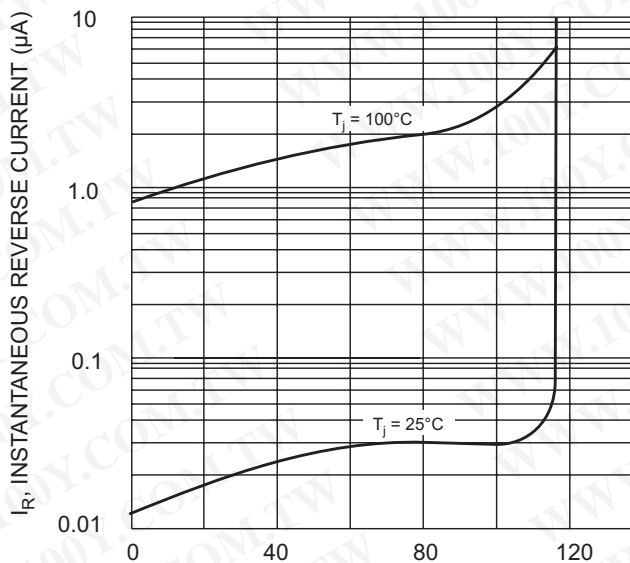


Fig. 5 Typical Reverse Characteristics