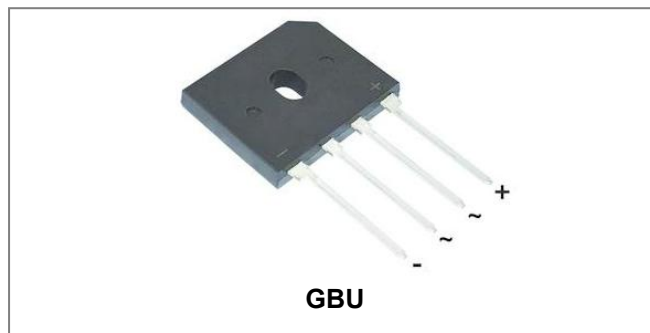


## GBU10005 THRU GBU1010

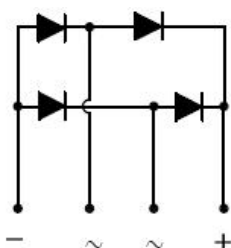
### Single-Phase 10.0A Glass Passivated Bridge Rectifier



#### Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

#### Circuit Diagram



#### Mechanical Data

- Case: GBU, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Lead Free: For RoHS / Lead Free Version

#### Maximum Ratings: @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	Symbol	GBU 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>DC</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Average forward rectified output current (with heatsink) @T <sub>c</sub> = 90°C	I <sub>o</sub>	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200							A
I <sup>2</sup> t Rating for fusing (t < 8.3ms)	I <sup>2</sup> t	239.04							A <sup>2</sup> s

**Electrical Characteristics: @T<sub>A</sub>=25°C unless otherwise specified**

Type Number	Symbol	GBU 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	Units
Forward Voltage (per element) @I <sub>F</sub> =5A @I <sub>F</sub> =10A	V <sub>F</sub>				1.0 1.1				V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C	I <sub>RM</sub>				5.0 500				μA
Typical Junction Capacitance(per leg) (Note 1)	C <sub>J</sub>				70				pF

\* Pulse width < 300 μs, duty cycle < 2%

**Thermal-Mechanical Specifications: @T<sub>A</sub>=25°C unless otherwise specified**

Type Number	Symbol	GBU 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	Units
Typical Thermal Resistance (per leg)	R <sub>θJA</sub> R <sub>θJL</sub> R <sub>θJC</sub>				28 5.3 8.7				°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>				-55 to +150				°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

**Ratings and Characteristics Curves**

Fig.1-Forward Current Derating Curve

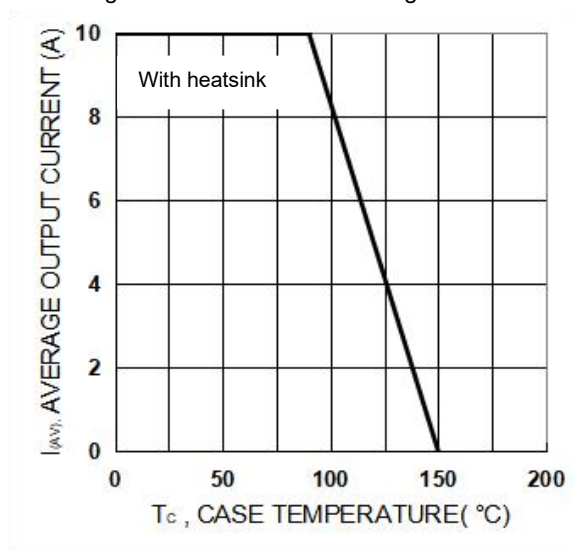


Fig.2-Typical Forward Characteristics

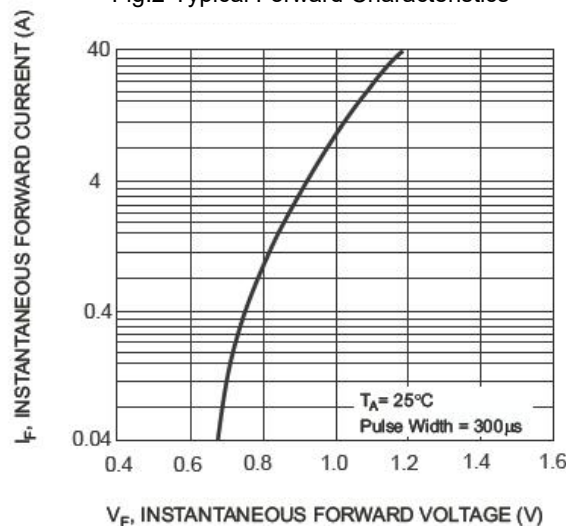


Fig.3-Maximum Peak Forward Surge Current

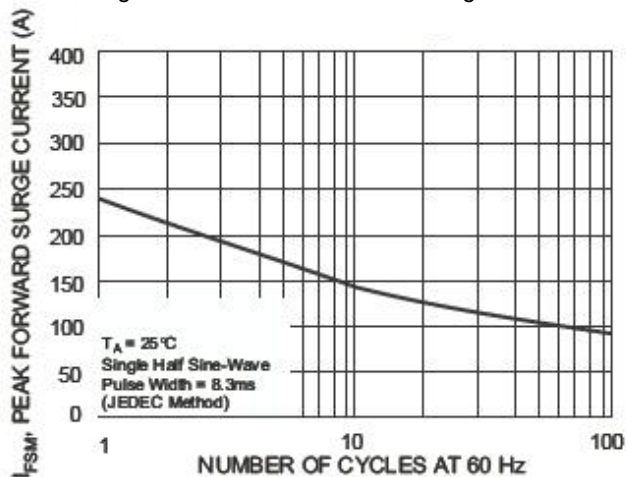


Fig.4-Typical Junction Capacitance

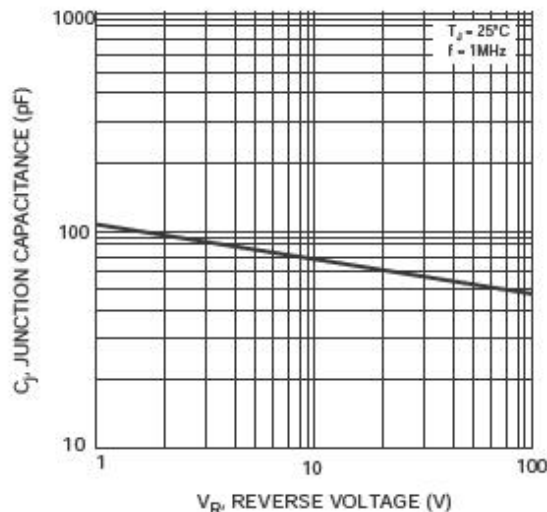
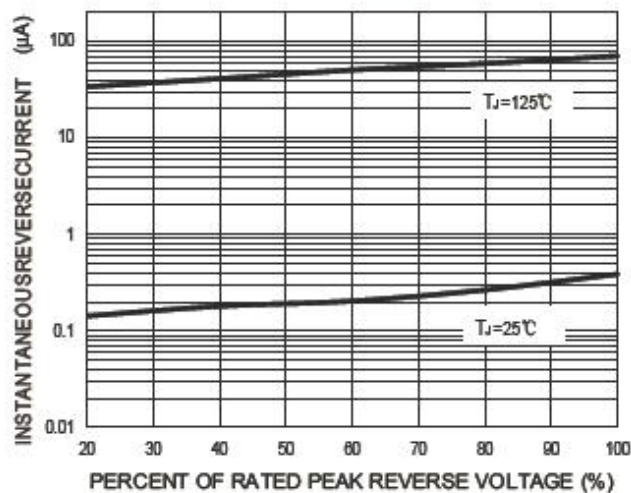


Fig.5-Typical Reverse Characteristics

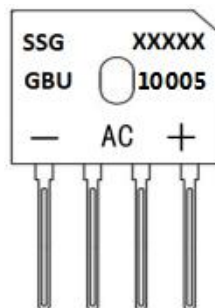


**Ordering Information**

Device	Package	Plating	Shipping
GBU10005 THRU GBU1010	GBU (Pb-Free)	Pure Sn	20pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**

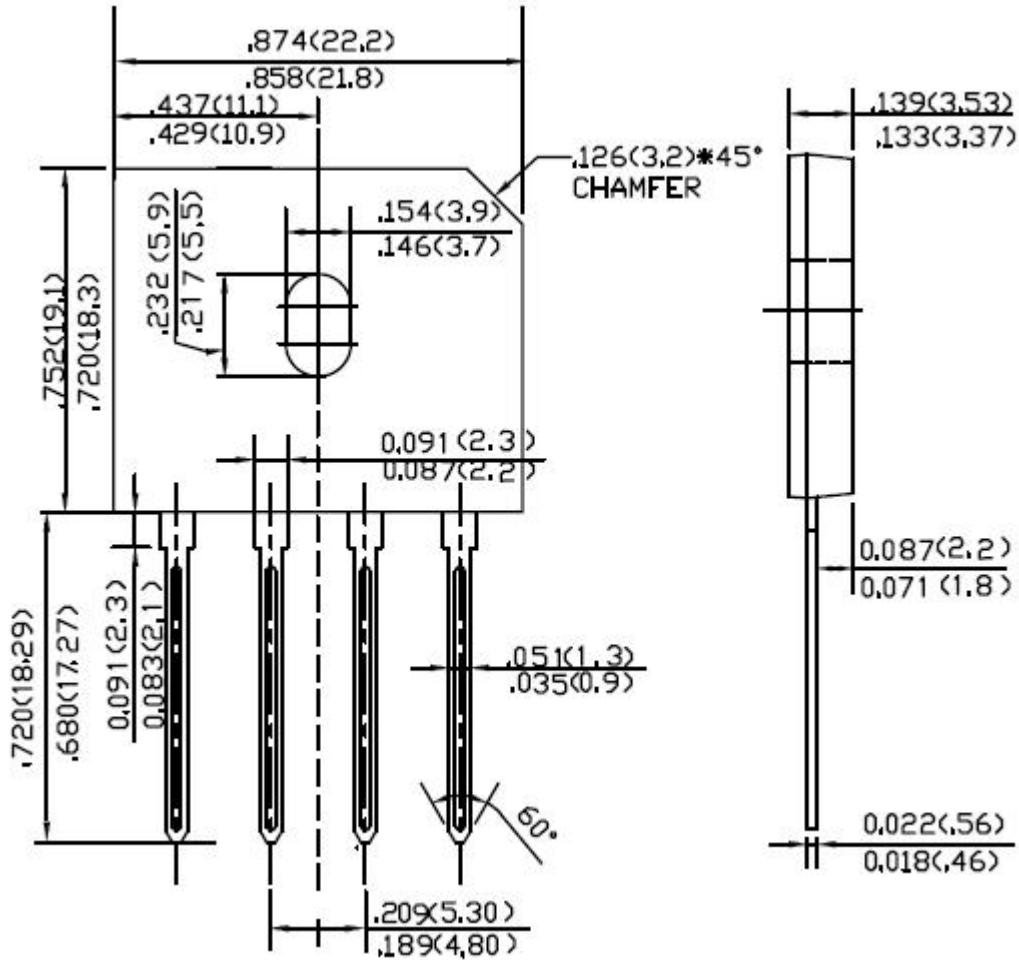


Where XXXXX is YYWWL

SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number  
GBU10005 = Type Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Mechanical Dimensions GBU (Inches/Millimeters)**



**Technical Data  
Data Sheet N1770, Rev. B**



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