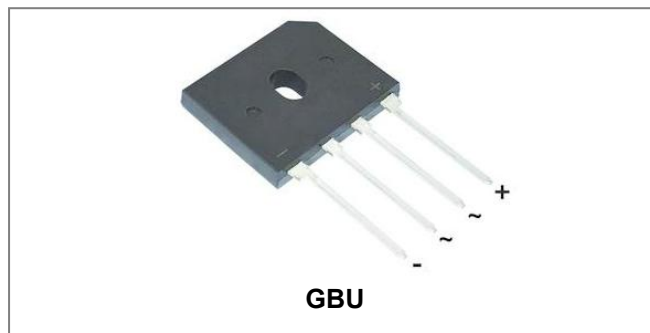


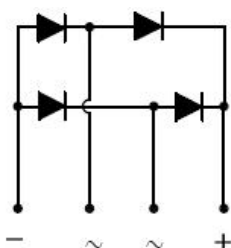
## GBU10005 THRU GBU1010 Single-Phase 10.0A Glass Passivated Bridge Rectifier



### 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	$V_{RRM}$ $V_{RWM}$ $V_{DC}$	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average forward rectified output current (Note 1) @T <sub>A</sub> = 40°C	$I_o$	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200							A

**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 2)	C <sub>J</sub>					70				pF

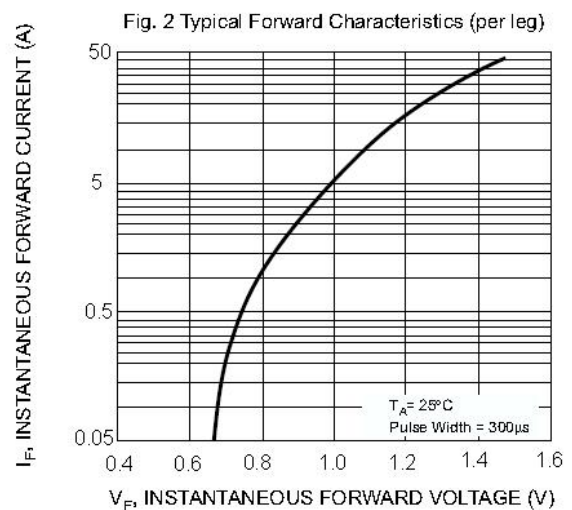
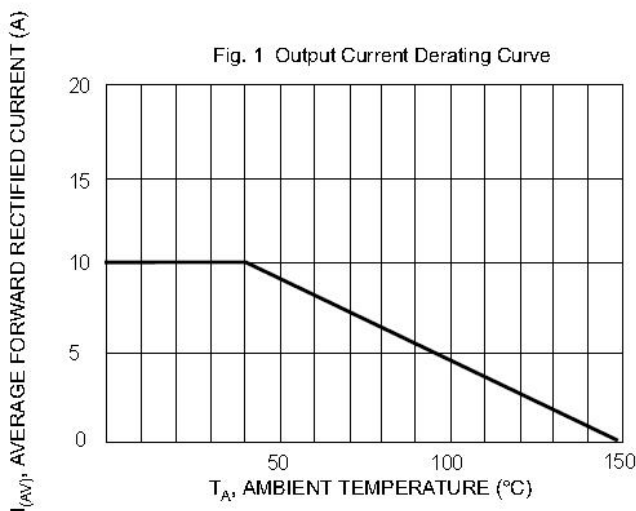
\* Pulse width < 300 μs, duty cycle < 2%

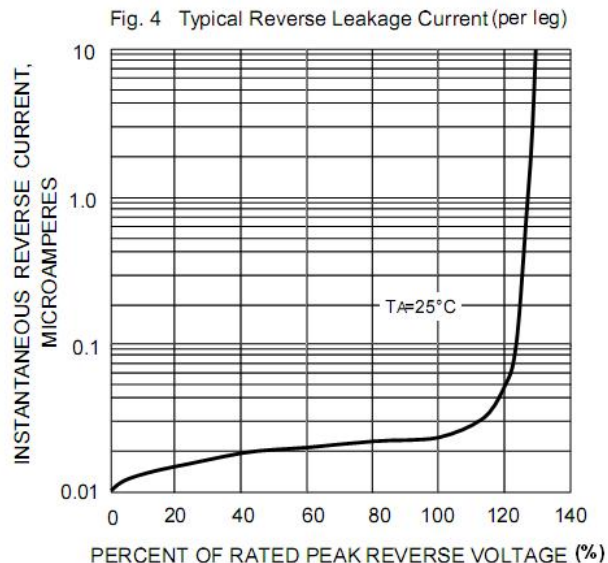
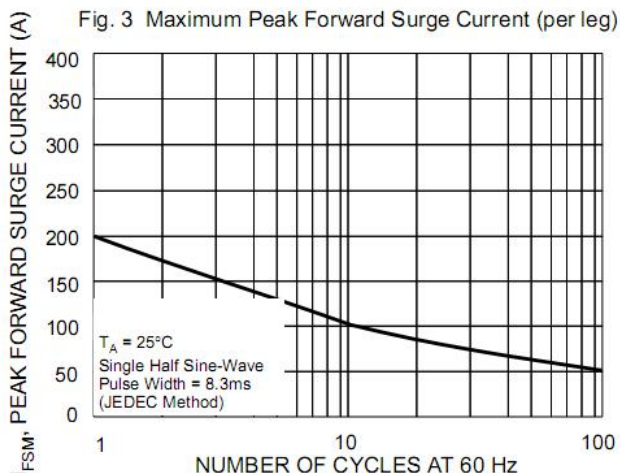
**Thermal-Mechanical Specifications: @T<sub>A</sub>=25°C unless otherwise specified**

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>					25 2.2				°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>					-55 to +150				°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

**Ratings and Characteristics Curves**



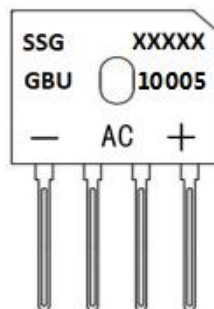


## Ordering Information

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



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



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