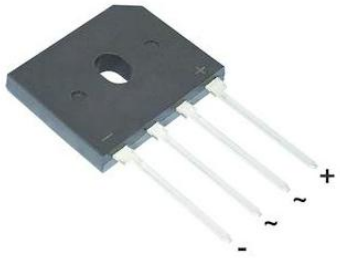
Technical Data
Data Sheet N1791, Rev. A

GBU6005 THRU GBU610

Single-Phase 6.0A Glass Passivated Bridge Rectifier

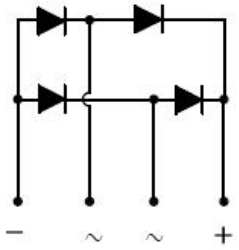


GBU

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_A=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 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	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_A = 40°C	I_O	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120							A

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RoHS

Electrical Characteristics: @T_A=25°C unless otherwise specified

Type Number	Symbol	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	Units
Forward Voltage (per element) @I_F =3A @I_F =6A	V_F				1.0 1.1				V
Peak Reverse Current @T_A = 25°C At Rated DC Blocking Voltage @T_A = 125°C	I_{RM}				5.0 500				μA
Typical Junction Capacitance(per leg) (Note 2)	C_J				65				pF

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

Thermal-Mechanical Specifications: @T_A=25°C unless otherwise specified

Type Number	Symbol	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	Units
Typical Thermal Resistance (per leg)	$R_{\theta JA}$ $R_{\theta JL}$				20 2.2				°C/W
Operating and Storage Temperature Range	T_J, T_{STG}				-55 to +150				°C

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

Ratings and Characteristics Curves

Fig. 1 Output Current Derating Curve

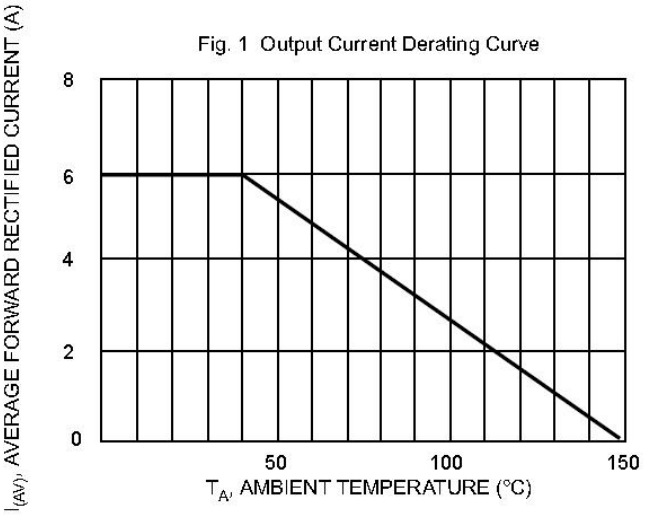

Fig. 2 Typical Forward Characteristics (per leg)

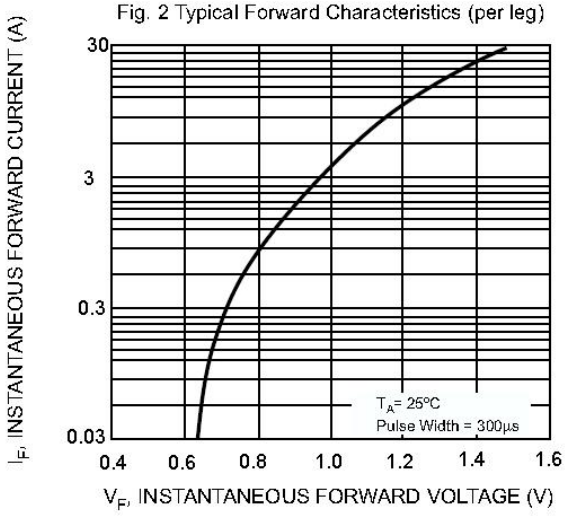

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Fig. 3 Maximum Peak Forward Surge Current (per leg)

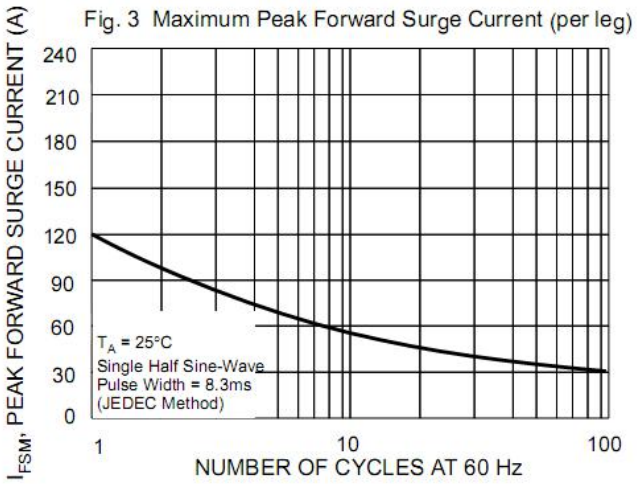
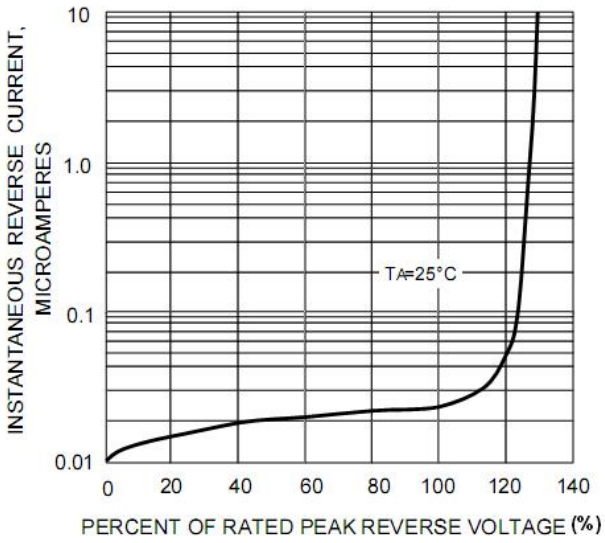


Fig. 4 Typical Reverse Leakage Current(per leg)

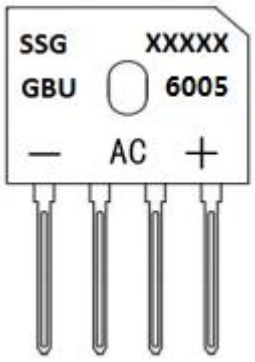


Ordering Information

Device	Package	Plating	Shipping
GBU6005 THRU GBU610	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
GBU6005	= Type Number

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

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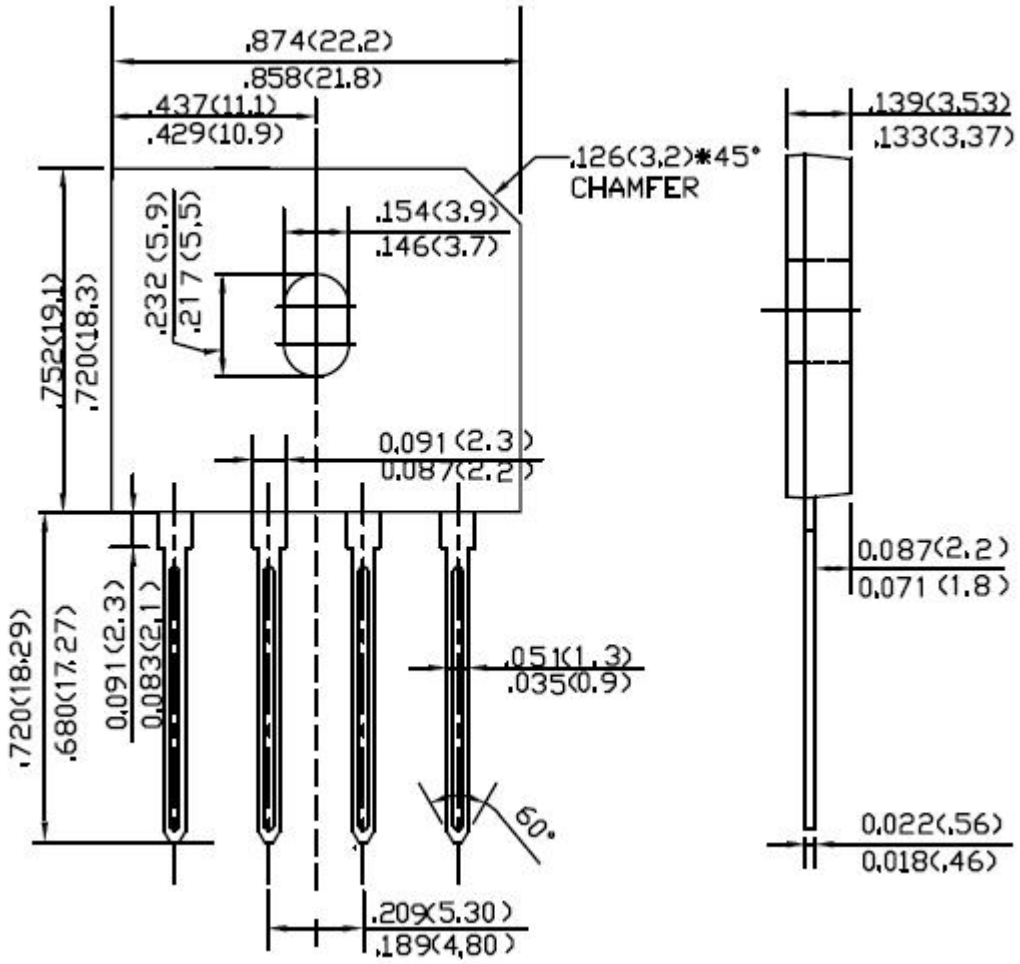
RoHS

Mechanical Dimensions GBU (Inches/Millimeters)



GBU6005
THRU
GBU610

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