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GBU6005-GBU610

Single-Phase 6.0A Glass Passivated Bridge Rectifier

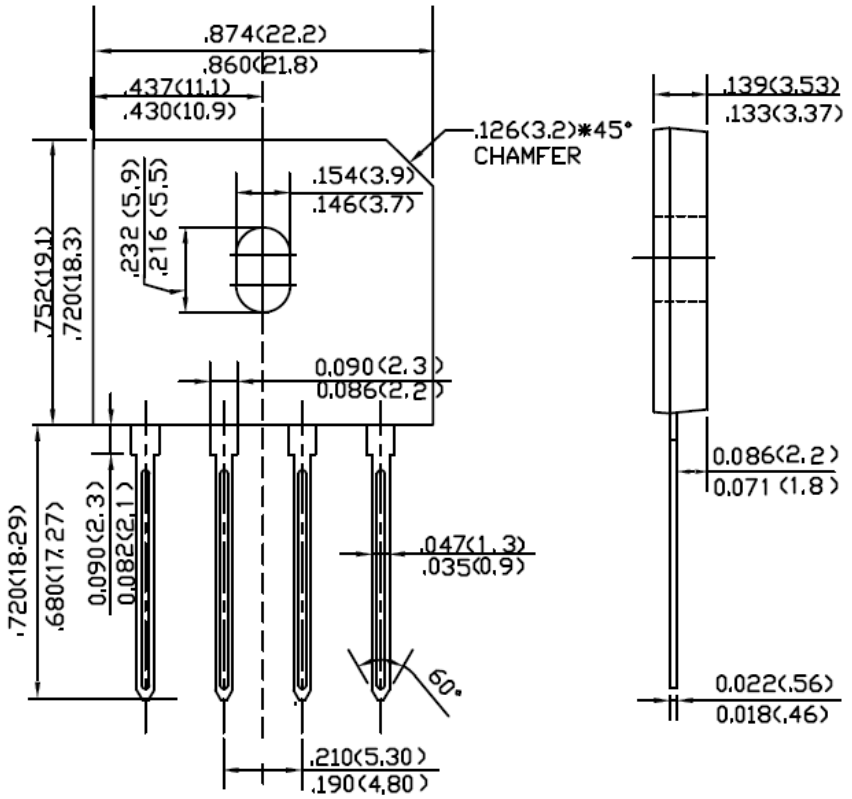
Features:

- **Glass passivated die construction**
- **Low forward voltage drop**
- **High current capability**
- **High surge current capability**
- **Plastic material-UL flammability 94V-0**

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**

Mechanical Dimensions: In Inches/mm



GBU

MARKING, MOLDING RESIN
Marking for Type Number, 1st row SSG YYWWL, 2nd row Type Number
Where YY is the manufacture year
WW is the manufacture week code
L is the wafer's Lot Number

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Maximum Ratings and Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified. Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Maximum Ratings:

Type Number	Symbol	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	Unit
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

Electrical Characteristics:

Type Number	Symbol	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	Unit
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

Thermal-Mechanical Specifications:

Type Number	Symbol	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	Unit
Typical Thermal Resistance (per leg)	$R_{\theta JA}$ $R_{\theta JL}$	17 2.2							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C
Case Style	GBU								

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.

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Fig. 1 Output Current Derating Curve

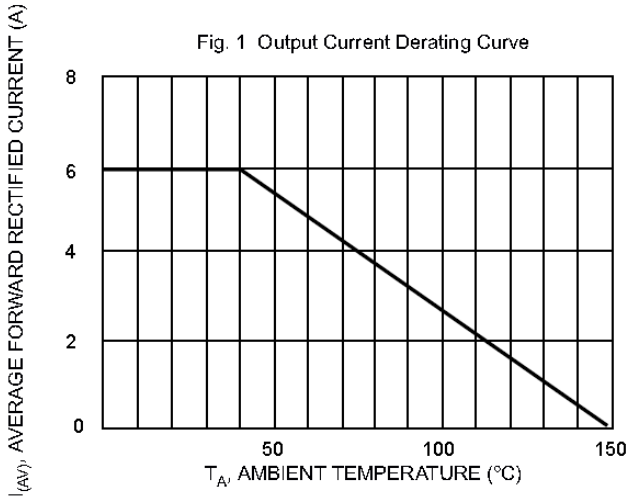


Fig. 2 Typical Forward Characteristics (per leg)

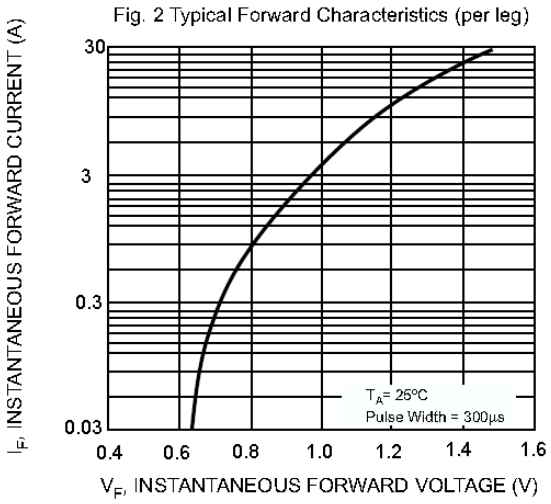


Fig. 3 Maximum Peak Forward Surge Current (per leg)

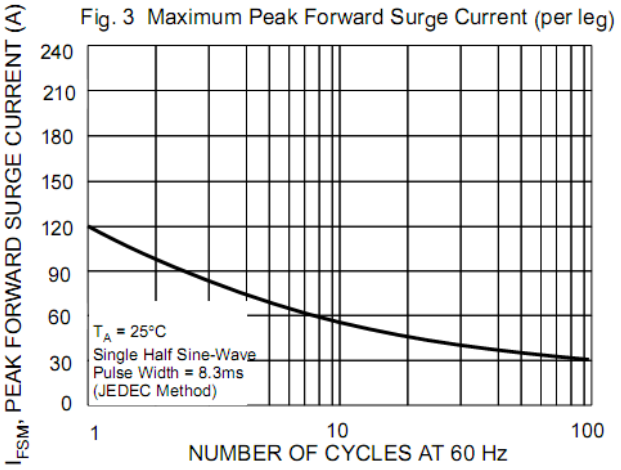
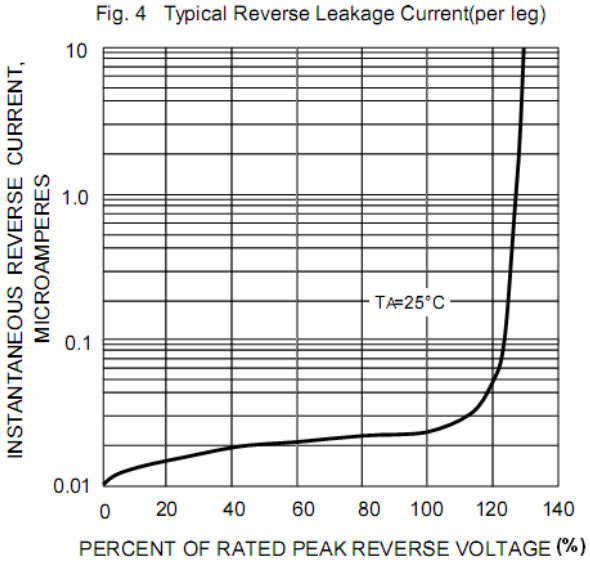


Fig. 4 Typical Reverse Leakage Current(per leg)



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