

GBU10005-GBU1010

Single-Phase 10.0A Glass Passivated Bridge Rectifier

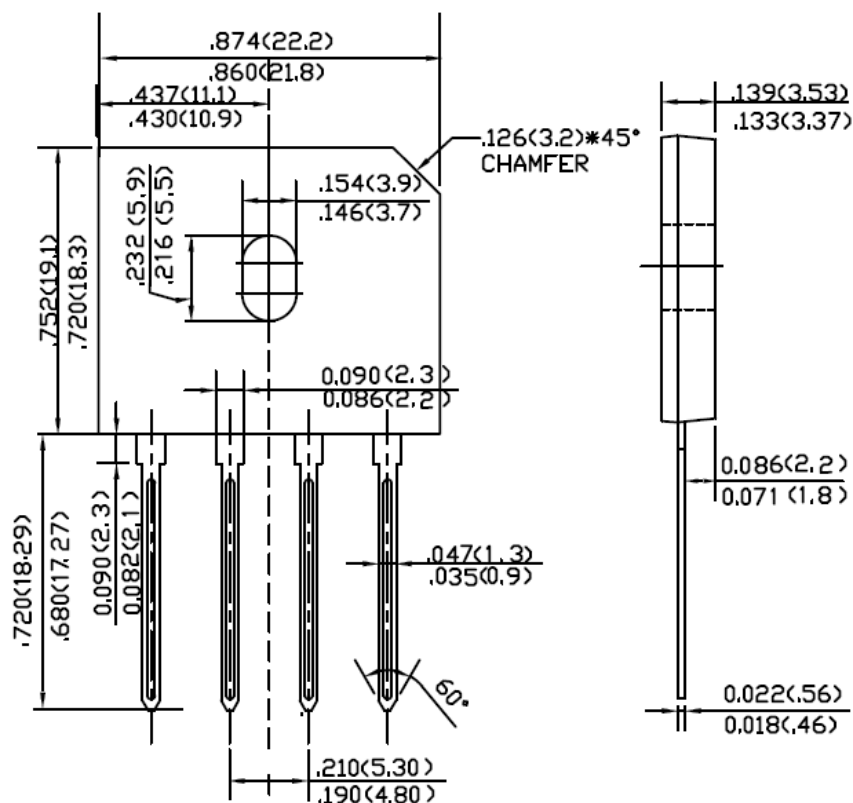
Features:

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

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

- China - Germany - Korea - Singapore - United States •
• <http://www.smc-diodes.com> - sales@smc-diodes.com •

Technical Data
Data Sheet N1770, Rev. -
Green Products

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 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	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) @ $T_A = 40^\circ\text{C}$	I_O	10.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A

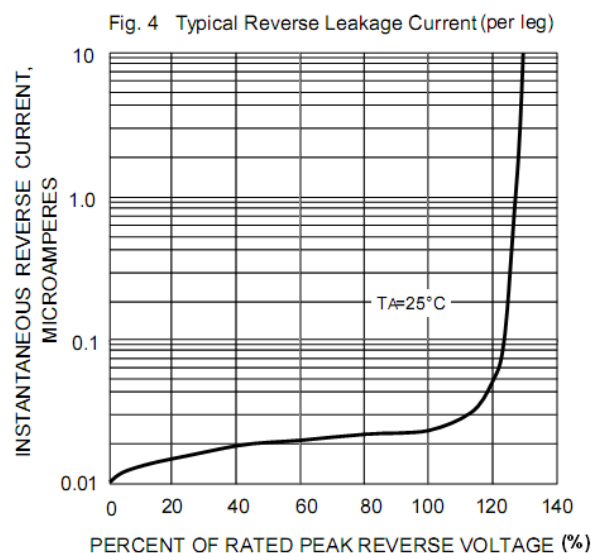
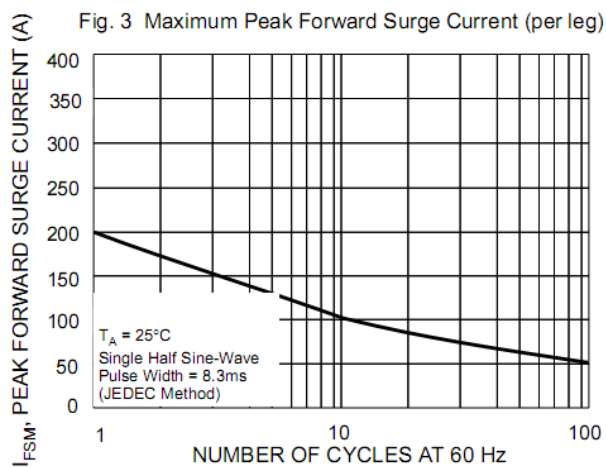
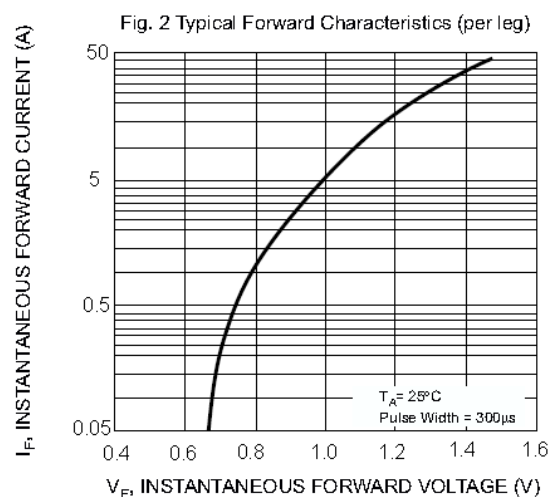
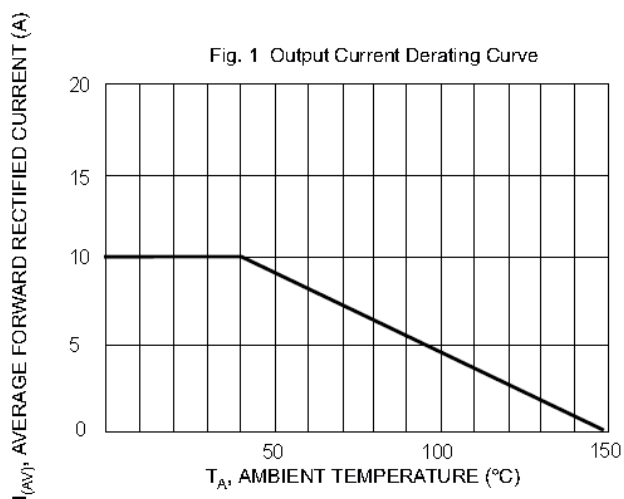
Electrical Characteristics:

Type Number	Symbol	GBU 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	Unit
Forward Voltage (per element) @ $I_F = 5\text{A}$ @ $I_F = 10\text{A}$	V_F	1.0 1.1							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	I_{RM}	5.0 500							μA
Typical Junction Capacitance(per leg) (Note 2)	C_J	70							pF

Thermal-Mechanical Specifications:

Type Number	Symbol	GBU 10005	GBU 1001	GBU 1002	GBU 1004	GBU 1006	GBU 1008	GBU 1010	Unit
Typical Thermal Resistance (per leg)	$R_{\theta JA}$ $R_{\theta JL}$	25 2.2							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^\circ\text{C}$
Case Style		GBU							

Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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