

**GBJ15005-GBJ1510**

**Single-Phase 15.0A Glass Passivated Bridge Rectifier**

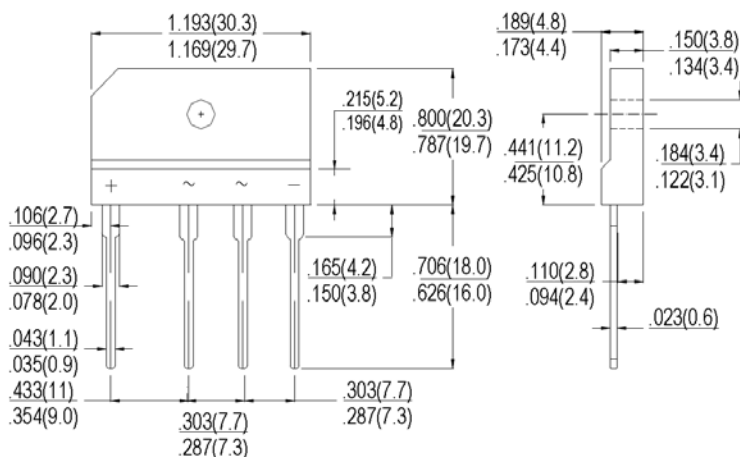
**Features:**

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

**Mechanical Data:**

- Case: GBJ, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Weight: 0.23ounce, 6.6gram
- Mounting: Through Hole for #6 Screw
- Mounting Torque: 0.5 N.m Typical and 0.8 N.m Maximum

**Mechanical Dimensions: In Inches/mm**



**GBJ**

**MARKING, MOLDING RESIN**

Marking for Type Number, 1<sup>st</sup> row SSG YYWWL, 2<sup>nd</sup> row Type Number  
Where YY is the manufacture year  
WW is the manufacture week code  
L is the wafer's Lot Number

**Ordering Information**

Device	Package	Shipping
GBJ15005 THRU GBJ1510	GBJ (Pb-Free)	250pcs / Box

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

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



## GBJ15005 THRU GBJ1510

Technical Data  
Data Sheet N1794, Rev. B

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	GBJ 15005	GBJ 1501	GBJ 1502	GBJ 1504	GBJ 1506	GBJ 1508	GBJ 1510	Unit
Maximum Recurrent Peak Reverse Voltage Maximum DC Blocking Voltage	$V_{RRM}$ $V_{DC}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum Average Forward Rectified Current with Heatsink at $T_C=100^\circ\text{C}$	$I_{(AV)}$	15.0							A
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	GBJ 15005	GBJ 1501	GBJ 1502	GBJ 1504	GBJ 1506	GBJ 1508	GBJ 1510	Unit
Maximum Forward Voltage (per element) @ $I_F=7.5\text{A}$	$V_F$	1.1							V
Maximum Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$	10 500							$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	60							pF

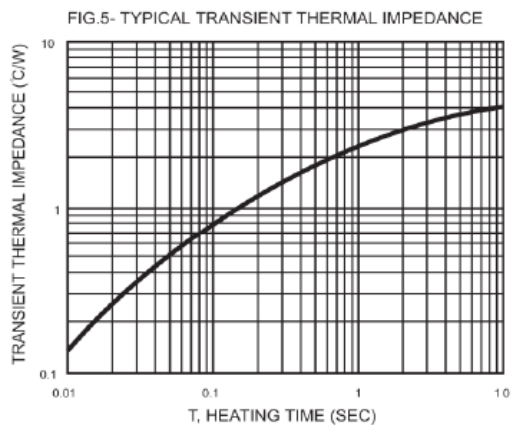
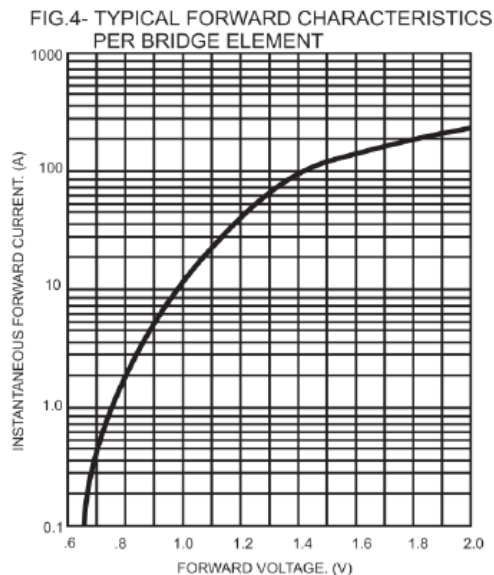
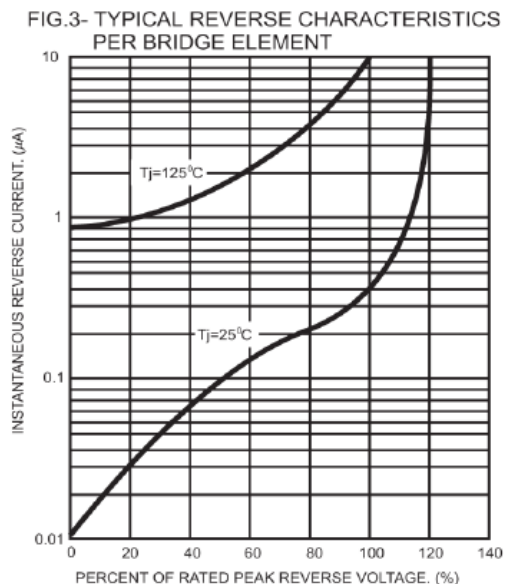
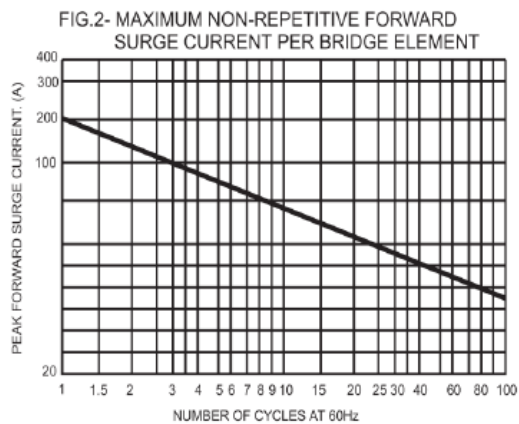
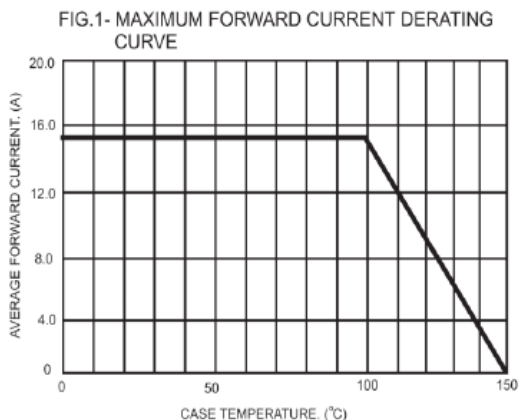
### Thermal-Mechanical Specifications:

Type Number	Symbol	GBJ 15005	GBJ 1501	GBJ 1502	GBJ 1504	GBJ 1506	GBJ 1508	GBJ 1510	Unit
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	0.8							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$
Case Style		GBJ							

Note: 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance from Junction to Case with Device Mounted on 300mm x 300mm x 1.6mm u Plate Heatsink.

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





**DISCLAIMER:**

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC - Sangdest Microelectronics (Nanjing) Co., Ltd sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC - Sangdest Microelectronics (Nanjing) Co., Ltd assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..