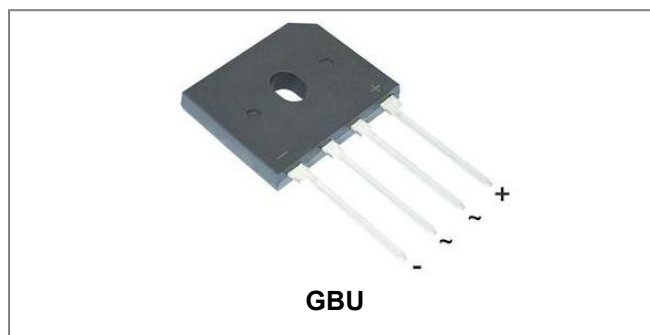


GBU15005 THRU GBU1510

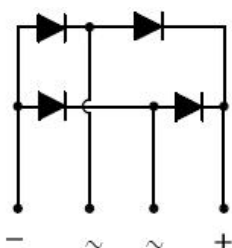
Single-Phase 15.0A Glass Passivated Bridge Rectifier



Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- 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 15005	GBU 1501	GBU 1502	GBU 1504	GBU 1506	GBU 1508	GBU 1510	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	15							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_A=25°C unless otherwise specified

Type Number	Symbol	GBU 15005	GBU 1501	GBU 1502	GBU 1504	GBU 1506	GBU 1508	GBU 1510	Units
Forward Voltage (per element) @I _F =7.5A @I _F =15A	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				70				pF

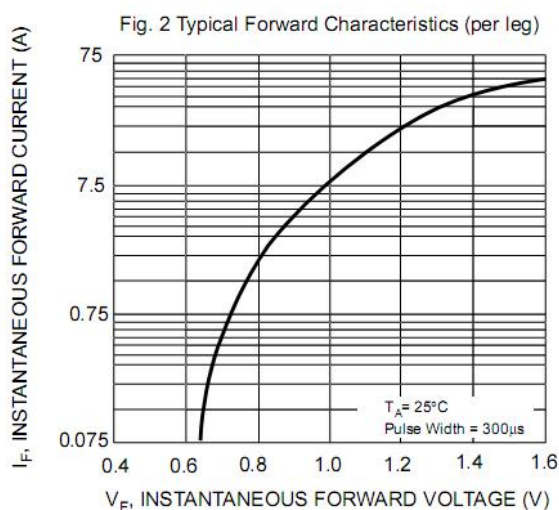
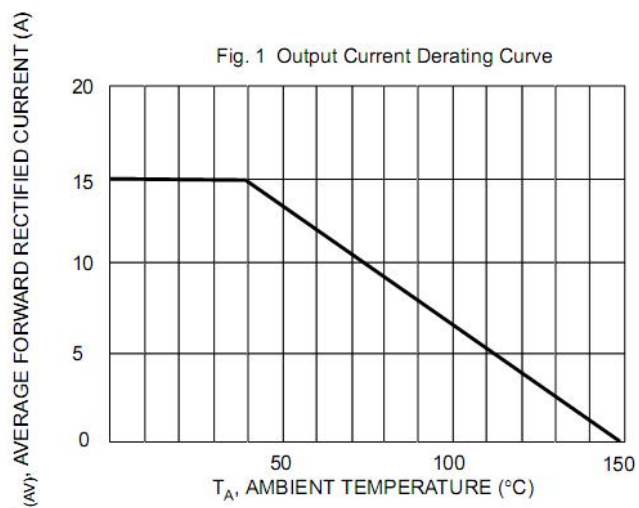
* Pulse width < 300 μs, duty cycle < 2%

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

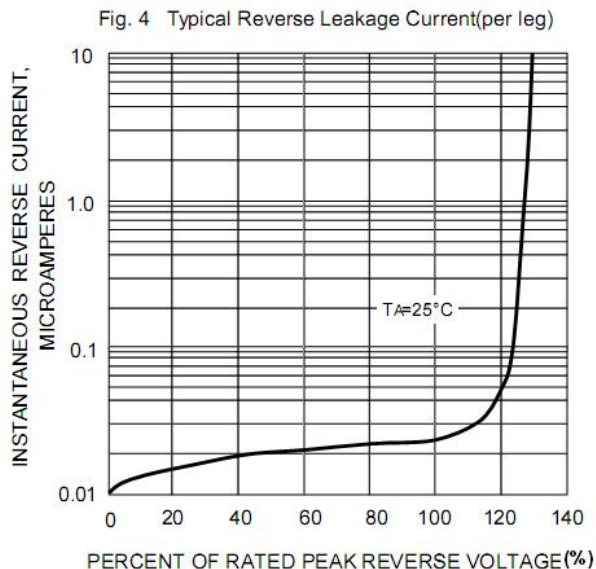
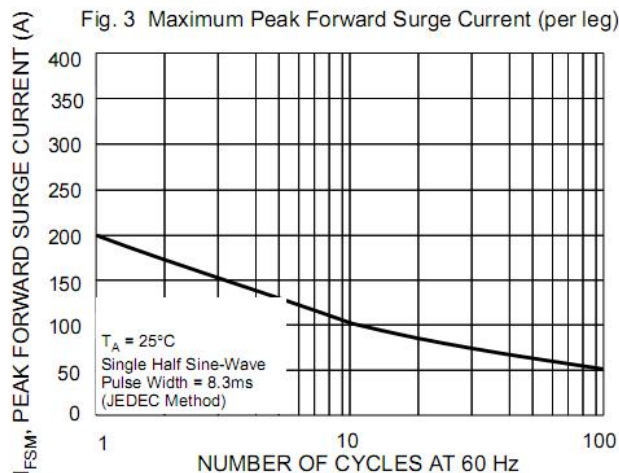
Type Number	Symbol	GBU 15005	GBU 1501	GBU 1502	GBU 1504	GBU 1506	GBU 1508	GBU 1510	Units
Typical Thermal Resistance (per leg)	R _{θJA} R _{θJL}				25 2.2				°C/W
Operating and Storage Temperature Range	T _J , T _{STG}				-55 to +150				°C

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

Ratings and Characteristics Curves



Technical Data
Data Sheet N1802, Rev. A

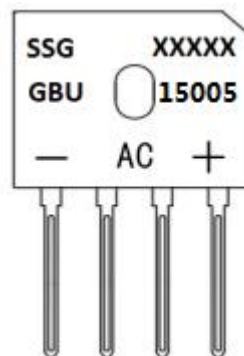


Ordering Information

Device	Package	Shipping
GBU15005 THRU GBU1510	GBU(Pb-Free)	20pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

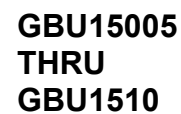
Marking Diagram



Where XXXXX is YYWWL

SSG = SSG
YY = Year
WW = Week
L = Lot Number
GBU15005 = Type Number

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



RoHS



Technical drawing of a mechanical part, showing dimensions in inches (in parentheses) and millimeters (in brackets). The drawing includes a top view, a side view, and a cross-sectional view.

Top View Dimensions:

- Overall width: .874 (22.2)
- Width to centerline: .858 (21.8)
- Width to hole center: .437 (11.1)
- Width to hole center (alternative): .429 (10.9)
- Overall height: .752 (19.1)
- Height to hole center: .720 (18.3)
- Hole diameter: .232 (5.9)
- Hole diameter (alternative): .217 (5.5)
- Distance from hole center to chamfer start: .154 (3.9)
- Distance from hole center to chamfer start (alternative): .146 (3.7)
- Chamfer dimensions: .126 (3.2) * 45° CHAMFER
- Distance from hole center to bottom edge: 0.091 (2.3)
- Distance from hole center to bottom edge (alternative): 0.087 (2.2)

Side View Dimensions:

- Overall height: .720 (18.29)
- Height to hole center: .680 (17.27)
- Distance from hole center to bottom edge: 0.091 (2.3)
- Distance from hole center to bottom edge (alternative): 0.083 (2.1)
- Distance from hole center to bottom edge (alternative): 0.051 (1.3)
- Distance from hole center to bottom edge (alternative): .035 (0.9)
- Angle: 60°
- Distance from hole center to bottom edge (alternative): .209 (5.30)
- Distance from hole center to bottom edge (alternative): .189 (4.80)

Cross-sectional View Dimensions:

- Overall width: .139 (3.53)
- Width to centerline: .133 (3.37)
- Distance from centerline to bottom edge: 0.087 (2.2)
- Distance from centerline to bottom edge (alternative): 0.071 (1.8)
- Distance from centerline to bottom edge (alternative): 0.022 (.56)
- Distance from centerline to bottom edge (alternative): 0.018 (.46)

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

**Technical Data
Data Sheet N1802, Rev. A**



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