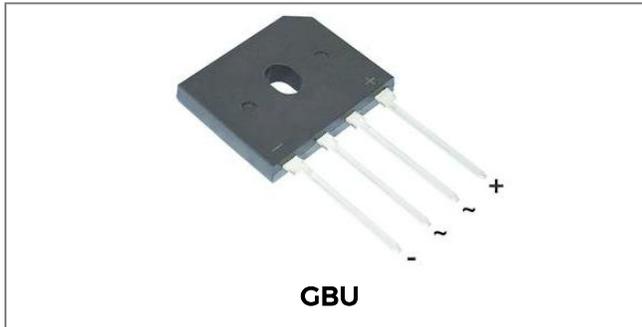


GBU25005 THRU GBU2510

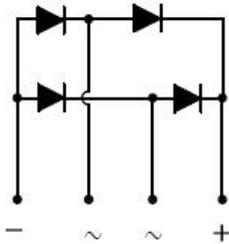
Single-Phase 25.0A Glass Passivated Bridge Rectifier



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 25005	GBU 2501	GBU 2502	GBU 2504	GBU 2506	GBU 2508	GBU 2510	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 (with heatsink) @T _C =90°C (without heatsink)	I _O	25 3.6							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	350							A
I ² t Rating for fusing (t < 8.3ms)	I ² t	508.357							A ² s

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

Type Number	Symbol	GBU 25005	GBU 2501	GBU 2502	GBU 2504	GBU 2506	GBU 2508	GBU 2510	Units	
Forward Voltage (per element) @I _F =12.5A	V _F					1.0				V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _{RM}					5.0 200				μA
Typical Junction Capacitance(per leg) (Note 1)	C _J					110				pF

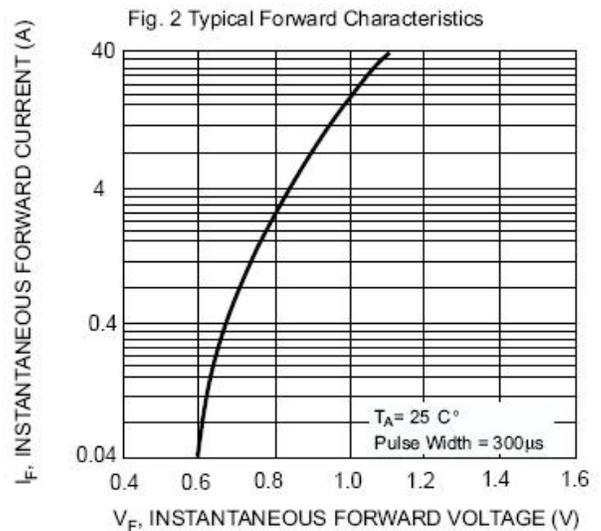
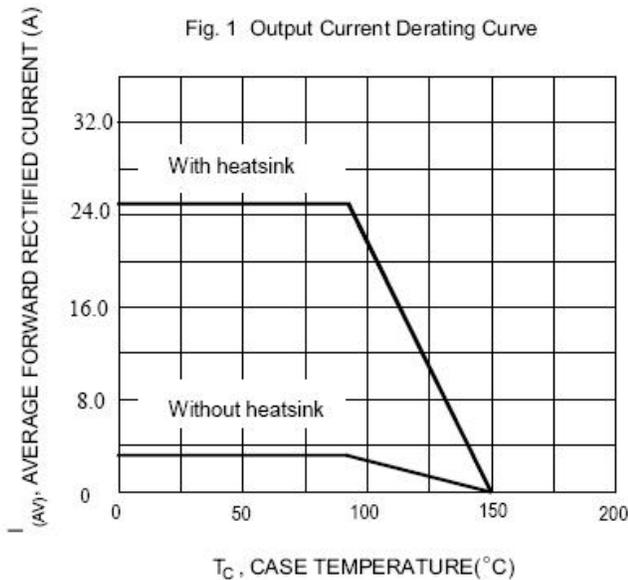
* Pulse width < 300 μs, duty cycle < 2%

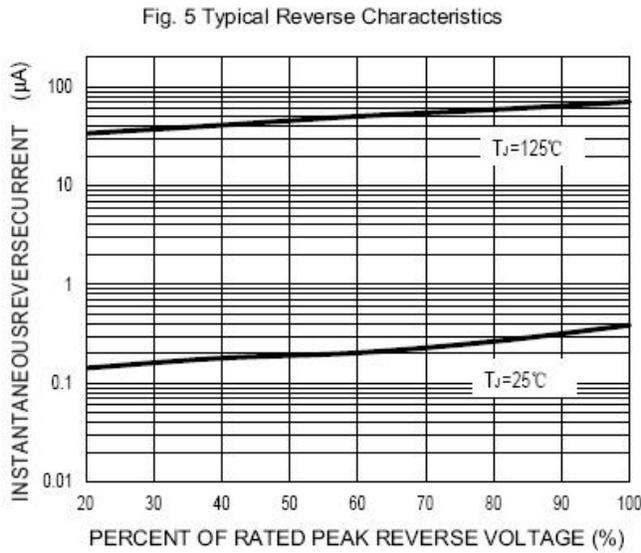
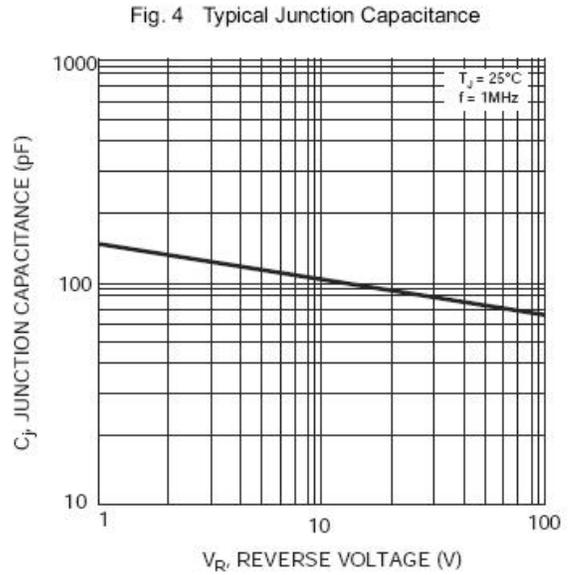
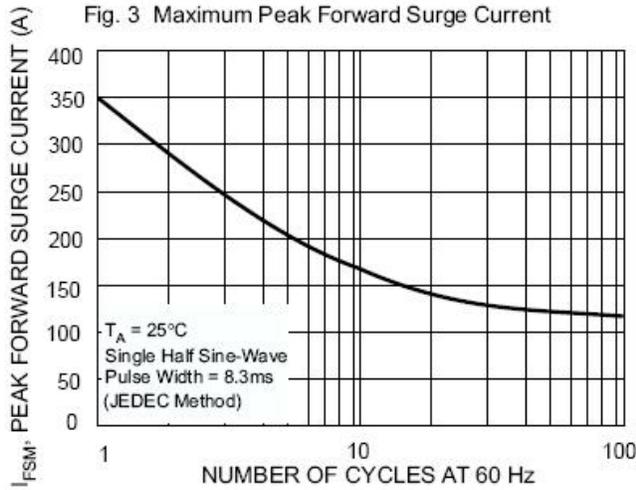
Thermal-Mechanical Specifications:@T_A=25°C unless otherwise specified

Type Number	Symbol	GBU 25005	GBU 2501	GBU 2502	GBU 2504	GBU 2506	GBU 2508	GBU 2510	Units	
Typical Thermal Resistance	R _{θJA} R _{θJC} R _{θJL}					28 8.7 5.3				°C/W
Operating and Storage Temperature Range	T _J , T _{STG}					-55 to +150				°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Ratings and Characteristics Curves







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