

### 25.0Amp Bridge Rectifiers

#### FEATURES :

- High efficiency
- Ideal for automated placement
- High surge current capability
- RoHS compliant.

#### TYPICAL APPLICATIONS :

General purpose use in AC/DC bridge full wave rectification for power supply, lighting ballast, battery charger, home appliances, office equipment, and telecommunication applications.



#### MECHANICAL DATA :

- Package : GBJ
- Molding compound meets UL 94 V-0 flammability rating
- Terminals : Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity : As marking on body



MAXIMUM RATINGS (Ratings at 25 °C ambient temperature unless otherwise specified)

Characteristic	Symbol	GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Average Forward Current @Half-sine wave, Resistance load With heatsink $T_c = 108^\circ\text{C}$	$I_o$	25							A
Average Forward Current @Half-sine wave, Resistance load Without heatsink $T_a = 25^\circ\text{C}$		4.5							A
Forward Surge Current (Non-repetitive)@60HZ sine wave, 1 cycle, $T_a = 25^\circ\text{C}$	$I_{FSM}$	400							A
Current squared time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ $T_a = 25^\circ\text{C}$ , Rating of per diode	$I^2t$	664							$\text{A}^2\text{s}$
Maximum instantaneous forward voltage at 12.5A	$V_{FM}$	1.10							V

Maximum DC reverse current at rated DC blocking voltage (Ta=25 °C/100 °C)	$I_{RRM}$	5 / 300	uA
Typical thermal resistance	$R_{\theta JA}$	1.0	°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-55~+150	°C

RATINGS AND CHARACTERISTICS CURVES

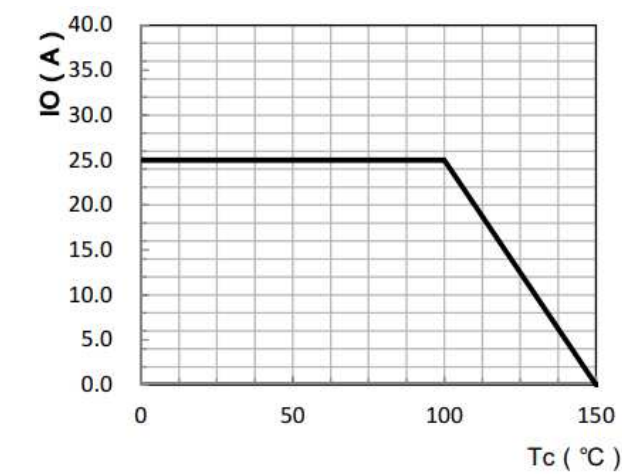


Figure 1. Typical  $I_o$ - $T_c$  Curve

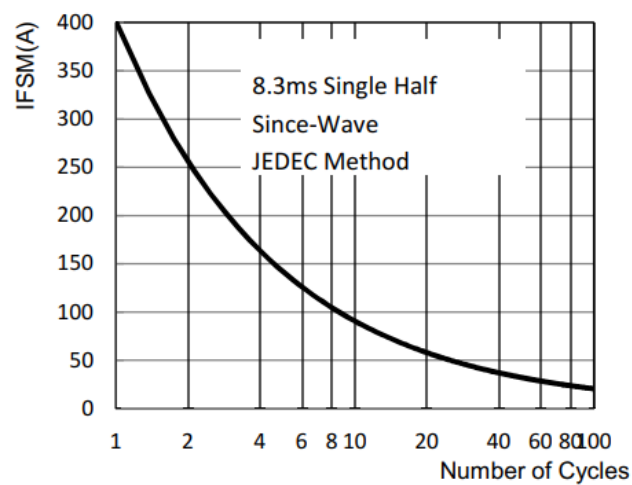


Figure 2. Typical Forward Surge Current Capability

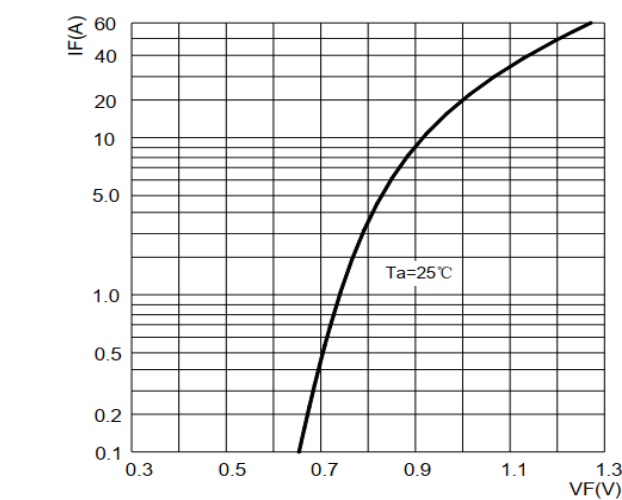


Figure 3. Typical Forward Voltage

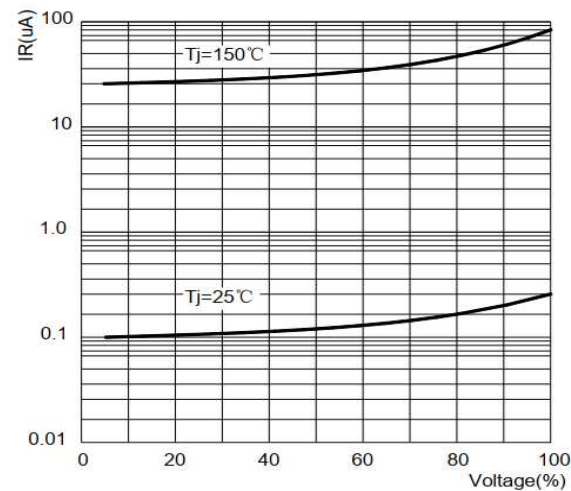
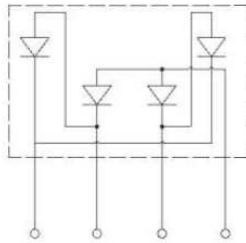
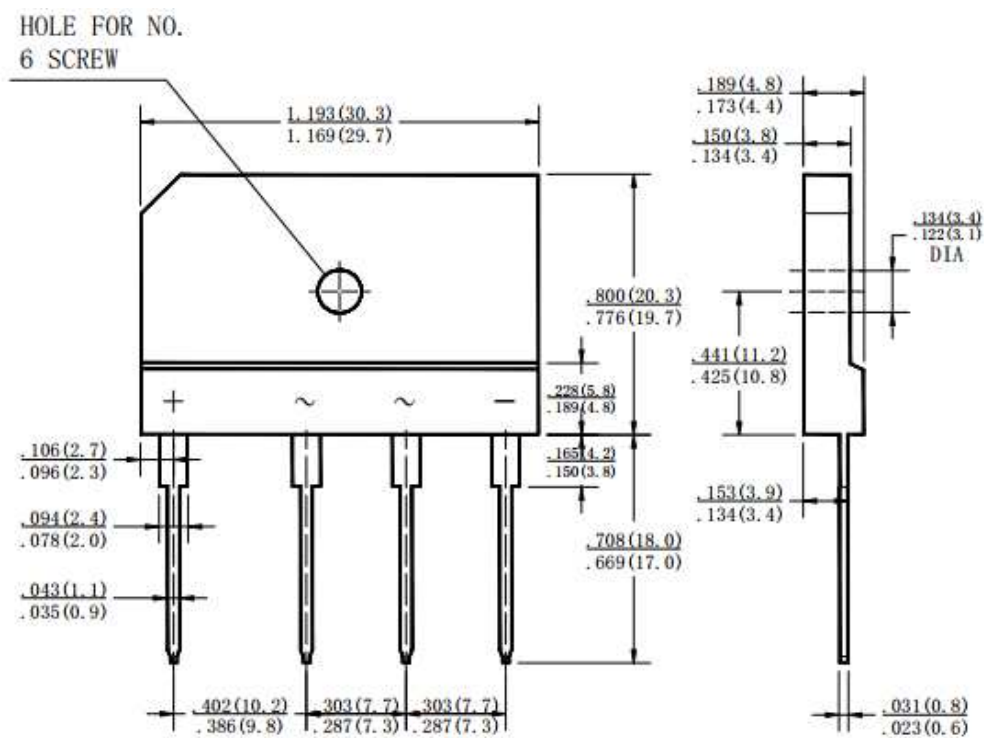


Figure 4. Typical Reverse Characteristics

- Circuit diagram



- Package outlines : Dimensions in inches and (millimeters)



## Notice

MOSPEC reserves the rights to make changes of the content herein the document anytime without notification. MOSPEC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies. Please refer to MOSPEC website for the last document.

MOSPEC disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially incurred.

Application shown on the herein document are examples of standard use and operation. Customers are responsible for comprehending suitable use in particular applications. MOSPEC makes no representation or warranty that such application will be suitable for the specified use without further testing or modification.

The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by MOSPEC for any infringements of patents or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of MOSPEC or others.

These MOSPEC products are intended for usage in general electronic equipment. Please make sure to consult with MOSPEC before you use these MOSPEC products in equipment which require specialized quality and/or reliability, and in equipment which could have major impact to the welfare of human life ( atomic energy control, aeronautics , traffic control, combustion control, safety devices etc.)