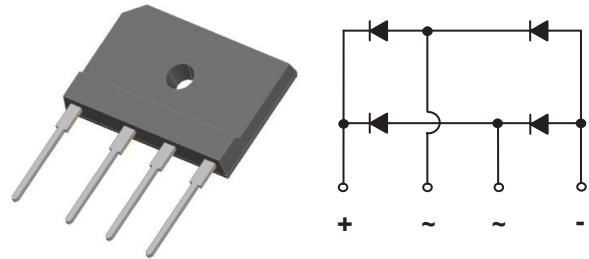


## Single-Phase Bridge Rectifier in GBJ

### Features

- Ideal for printed circuit boards
- High surge current capability
- Typical IR less than 0.1μA
- High case dielectric strength
- Glass passivated chip junction



### Mechanical Data

- **Case:** GBJ(plastic package).  
RoHS compliant
- **Molding Compound Flammability Rating:**  
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:  
260 °C/10 sec. at terminals

### Applications

- Audio equipment
- Monitor
- TV
- Printer
- SMPS
- Other AC/DC rectification application

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	GBJ2502	GBJ2504	GBJ2506	GBJ2508	GBJ2510	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	200	400	600	800	1000	V
Maximum average forward output rectified current (fig. 1) <small>on glass-epoxy PCB <sup>(1)</sup></small>	$I_{F(AV)}$	25.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	270					A
Rating for fusing (t < 8.3 ms)	$I^2t$	300					A <sup>2</sup> s
Operating junction and storage temperature range	$T_J, T_{STG}$	- 55 to + 150					°C

### Thermal Characteristics

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	GBJ2502	GBJ2504	GBJ2506	GBJ2508	GBJ2510	Unit
Typical thermal resistance (junction to ambient)	$R_{\theta JA}$ <sup>(1)</sup>	22					°C/W
Typical thermal resistance (junction to case)	$R_{\theta JC}$ <sup>(2)</sup>	1.5					°C/W

### Electrical Characteristics

( $T_A = 25\text{ °C}$  unless otherwise specified)

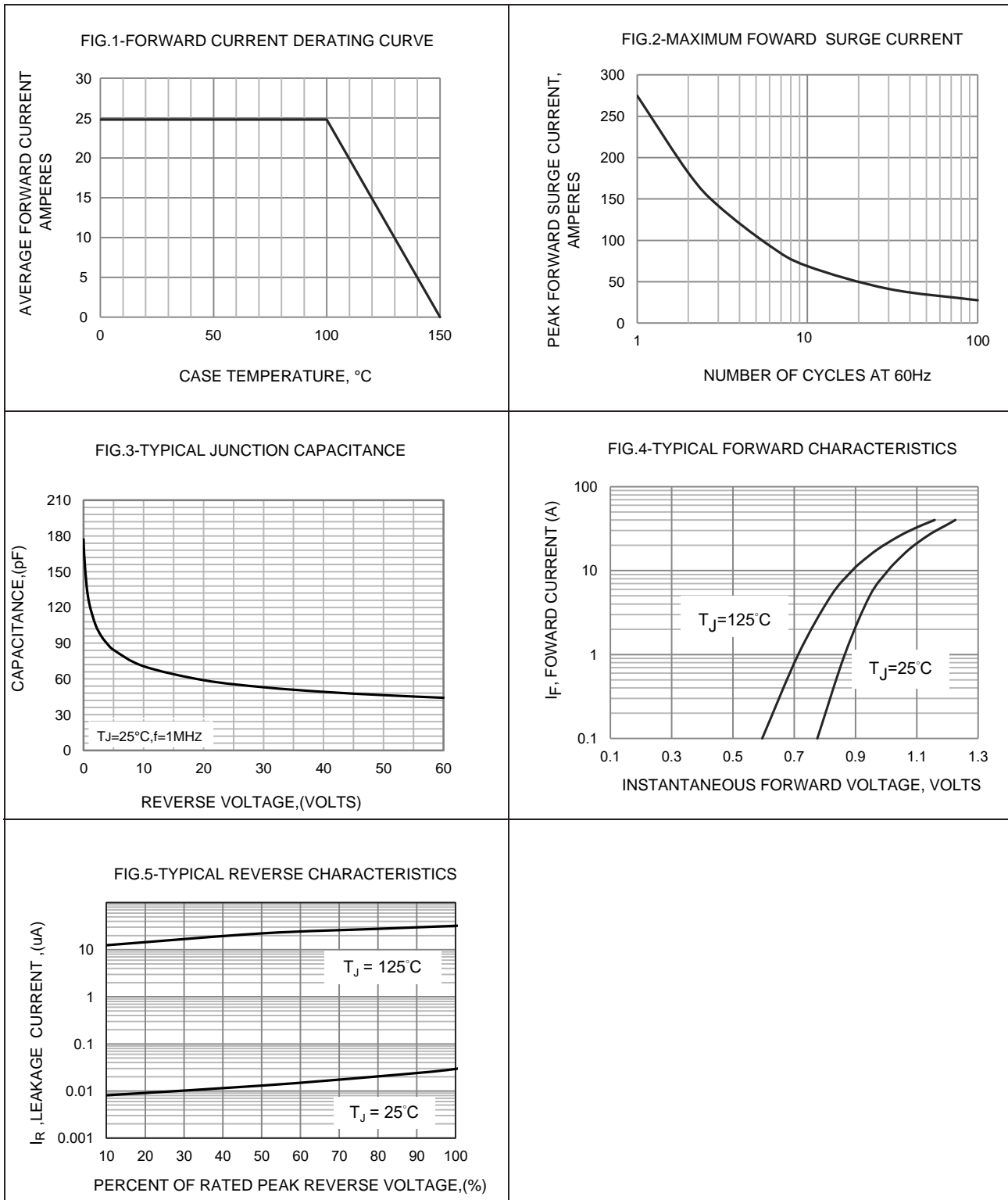
Parameter	Condition	Symbol	GBJ2502	GBJ2504	GBJ2506	GBJ2508	GBJ1510	Unit
Maximum instantaneous forward voltage per diode	$I_F = 7.5\text{ A}$	$V_F$	1.0					V
Maximum DC reverse current at rated DC blocking voltage per diode	$T_A = 25\text{ °C}$	$I_R$	5					μA
	$T_A = 125\text{ °C}$	$I_R$	500					μA
Typical junction capacitance per diode	4.0 V, 1 MHz	$C_J$	70					pF

#### Notes

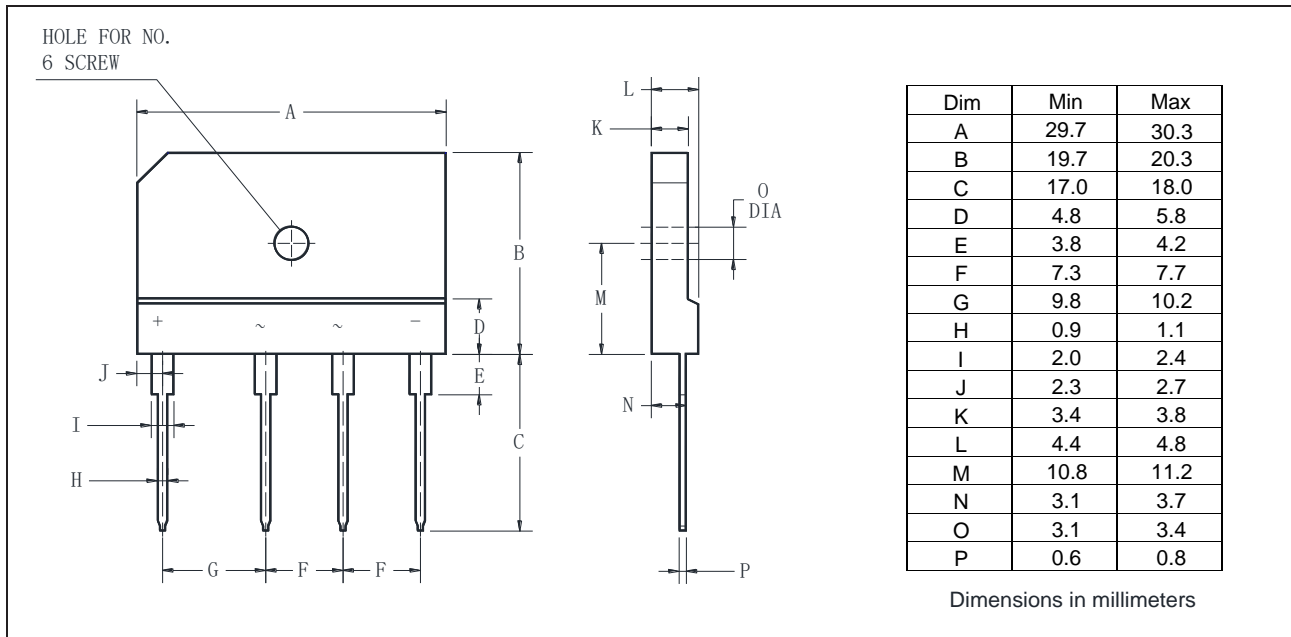
<sup>(1)</sup> Unit case mounted on 1.6x1.6x0.06" thick(5.1 x5.1 x0.15cm) Al .plate

<sup>(2)</sup> Units mounted on P.C.B. with 0.5 x 0.5" (12.7 x12.7 mm) copper pads and 0.375" (9.5 mm) lead length

Typical Characteristics ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



**Package Dimensions**



**Ordering information**

Order code	Package	Packaging option	Base quantity	Packaging specification
GBJ2502 thru GBJ2510	GBJ	BOX	500pcs / BOX	EIA STD RS-481

**Revision history**

Date	Revision	Changes
23-May-2020	1.0	Initial release

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