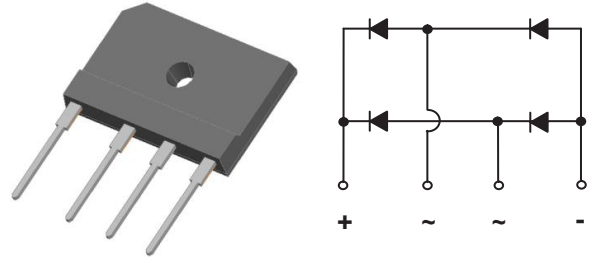


Single-Phase Bridge Rectifier in GBJ

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	GBJ5002	GBJ5004	GBJ5006	GBJ5008	GBJ5010	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 ⁽¹⁾</small>	$I_{F(AV)}$	50.0					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	400					A
Rating for fusing (t < 8.3 ms)	I^2t	664					A ² 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	GBJ5002	GBJ5004	GBJ5006	GBJ5008	GBJ5010	Unit
Typical thermal resistance (junction to ambient)	$R_{\theta JA}$ ⁽¹⁾	22					°C/W
Typical thermal resistance (junction to case)	$R_{\theta JC}$ ⁽²⁾	1.0					°C/W

Electrical Characteristics

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

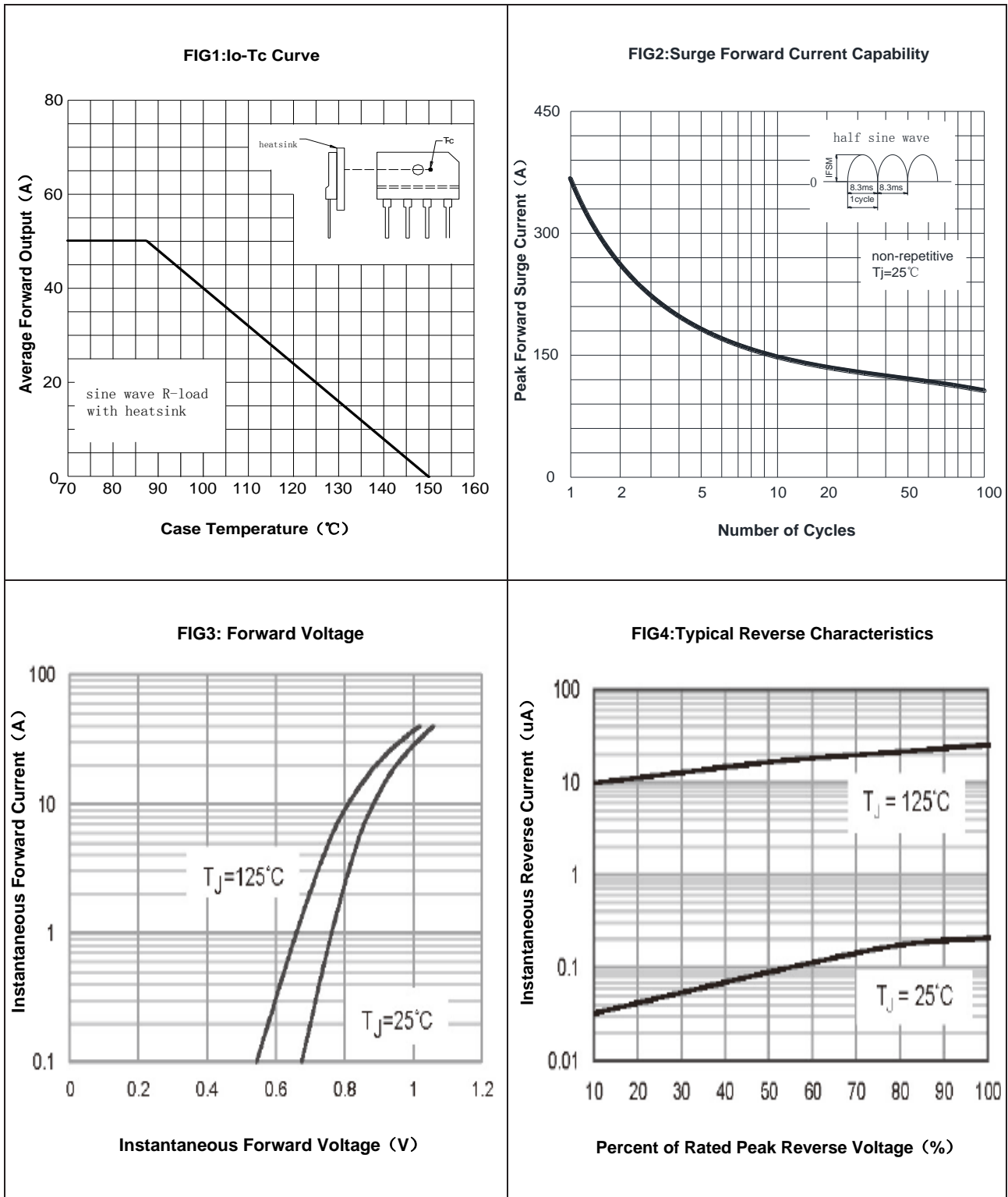
Parameter	Condition	Symbol	GBJ5002	GBJ5004	GBJ5006	GBJ5008	GBJ5010	Unit
Maximum instantaneous forward voltage per diode	$I_F = 17.5\text{ A}$	V_F	1.0					V
Maximum DC reverse current at rated DC blocking voltage per diode	$T_A = 25\text{ °C}$ $T_A = 125\text{ °C}$	I_R	5 500					μA
Typical junction capacitance per diode	4.0 V, 1 MHz	C_J	150					pF

Notes

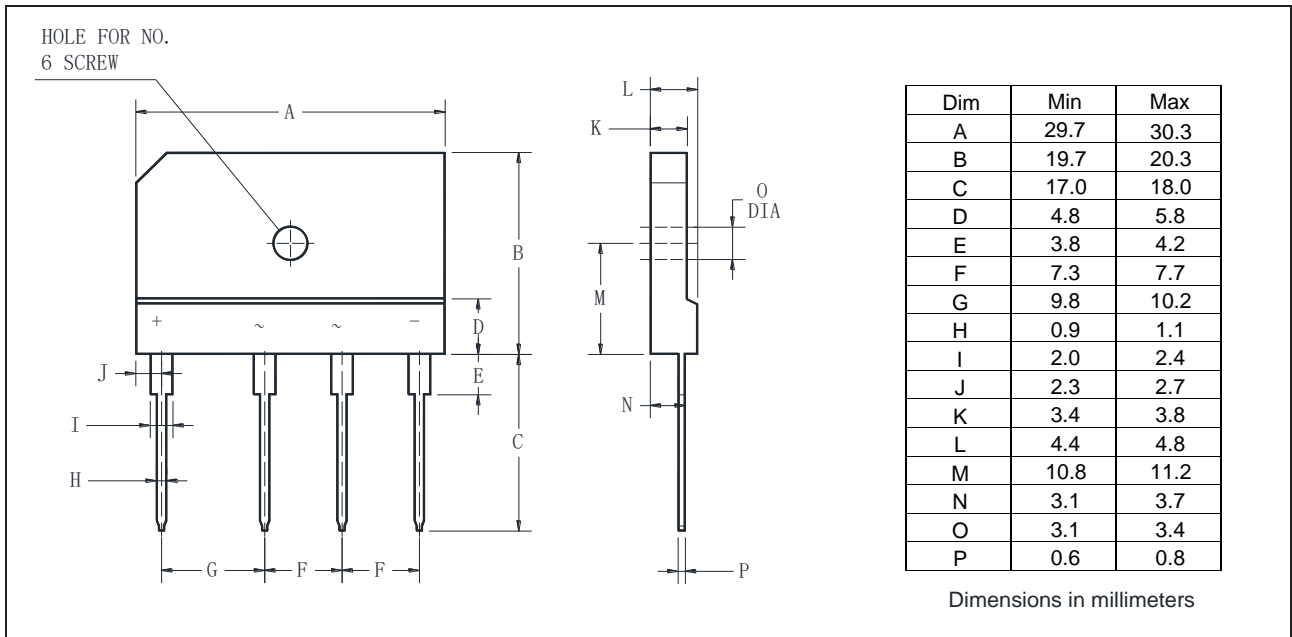
⁽¹⁾ Unit case mounted on 1.6x1.6x0.06" thick(5.1 x5.1 x0.15cm) Al .plate

⁽²⁾ 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
GBJ5002 thru GBJ5010	GBJ	BOX	200pcs / BOX	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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