

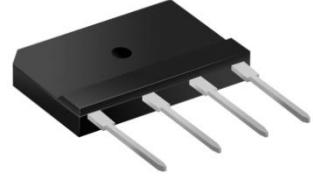
Silicon Bridge Rectifiers

GBJ30J - GBJ30M

Features

- Glass passivated junction
- High surge current capability
- Saves space on printed circuit boards
- High soldering temperature guaranteed: 260°C @ 10s
- RoHS compliant with Halogen-free

HF



Mechanical Data

- Case: GBJ molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Leads solderable per MIL-STD-750

Maximum Ratings (@T_A = 25°C unless otherwise specified)

Parameter	Symbol	GBJ30J	GBJ30K	GBJ30M	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	600	800	1000	V
RMS Reverse Voltage	V _{RMS}	420	560	700	V
DC Blocking Voltage	V _{DC}	600	800	1000	V
Average Forward Output Current	I _{F(AV)}	30			A
Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave	@T _J = 25°C I _{FSM}	350			A
I ² t Rating for Fusing	@T _J = 25°C I ² t	508			A ² s

Thermal Characteristics

Parameter	Symbol	GBJ30J	GBJ30K	GBJ30M	Unit
Typical Thermal Resistance*1, *2	R _{ΘJA} *2	25.2			°C/W
	R _{ΘJC} *1	1.5			
Operating Junction Temperature Range	T _J	-55 ~ +150			°C
Storage Temperature Range	T _{STG}	-55 ~ +150			°C

Note 1: Unit mounted on p.c.b. of 65mm x 50mm x 2.4mm with aluminum plate heat sink

Note 2: Unit mounted on p.c.b. without heat sink

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Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition		Typ.	Max.	Unit
Instantaneous Forward Voltage	V_F	$I_F = 17.5\text{A}$ Per Diode		-	1.05	V
Reverse current	I_R	Rated V_R	@ $T_A = 25^\circ\text{C}$	-	5.0	μA
			@ $T_A = 125^\circ\text{C}$	-	300.0	

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Ratings and Characteristic Curves (@ $T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

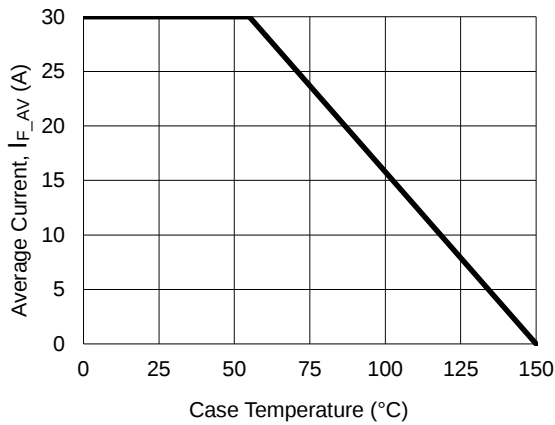


Fig.2 Surge Current Derating Curve

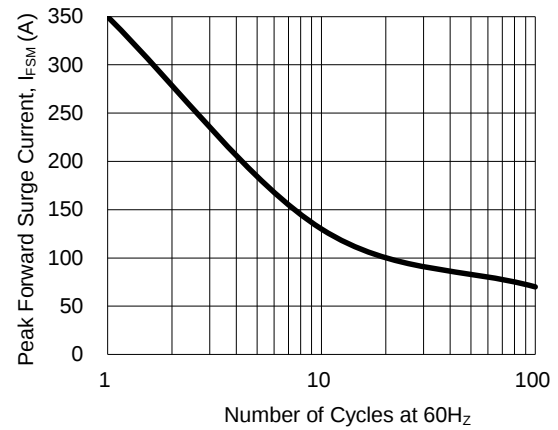


Fig.3 Typical Forward Voltage Characteristic

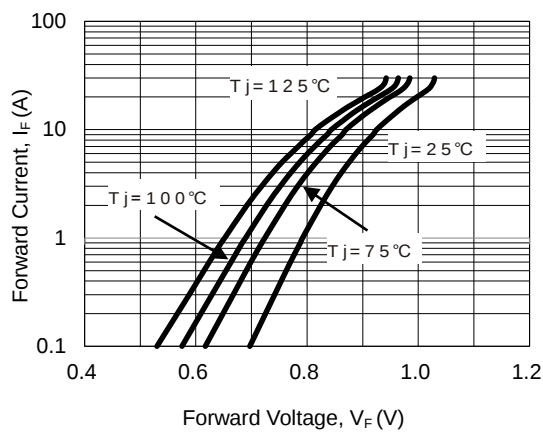
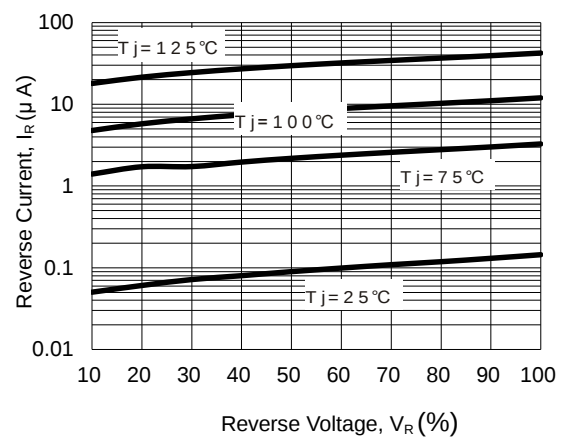


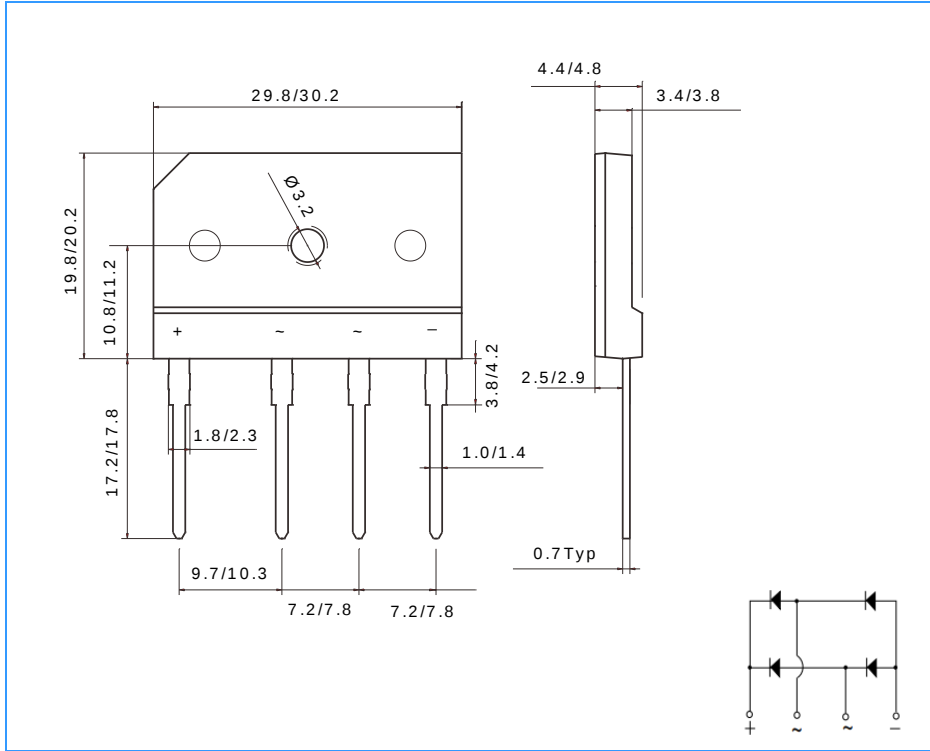
Fig.4 Typical Reverse Characteristic



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GBJ30J - GBJ30M

Package Outline Dimensions (unit: mm)



Ordering Information

Part Number	Marking	Package
GBJ30J	GBJ30J	GBJ
GBJ30K	GBJ30K	GBJ
GBJ30M	GBJ30M	GBJ