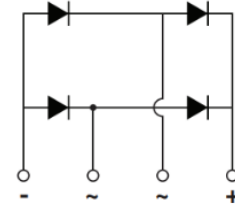
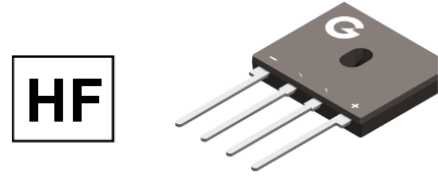


Silicon Bridge Rectifiers

GBU6J - GBU6M

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



Mechanical Data

- Case: GBU 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	GBU6J	GBU6K	GBU6M	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)}	6.0			A
Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave	@T _J = 25°C I _{FSM}	175			A
I ² t Rating for Fusing	@T _J = 25°C I ² t	127			A ² s

Thermal Characteristics

Parameter	Symbol	GBU6J	GBU6K	GBU6M	Unit
Typical Thermal Resistance*1, *2	R _{θJA} *2	35			°C/W
	R _{θJC} *1	4.2			
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

Silicon Bridge Rectifiers

GBU6J - GBU6M

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

Parameter	Symbol	Test Condition		Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 2\mu\text{A}$, GBU6J		600	-	-	V
		$I_R = 2\mu\text{A}$, GBU6K		800	-	-	V
		$I_R = 2\mu\text{A}$, GBU6M		1000	-	-	V
Instantaneous Forward Voltage	V_F	$I_F = 3.0\text{A}$ Per Diode		-	-	1.0	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	

Silicon Bridge Rectifiers

GBU6J - GBU6M

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

Fig.1 Forward Current Derating Curve

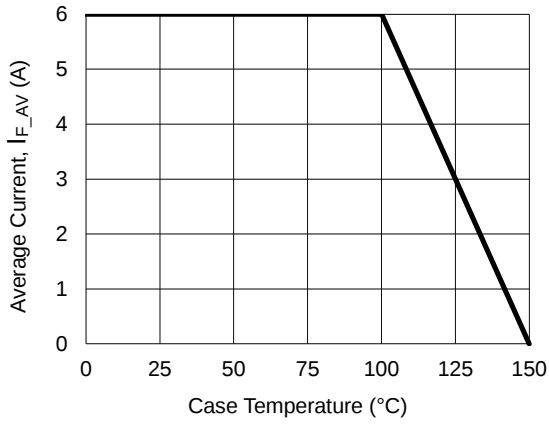


Fig.2 Surge Current Derating Curve

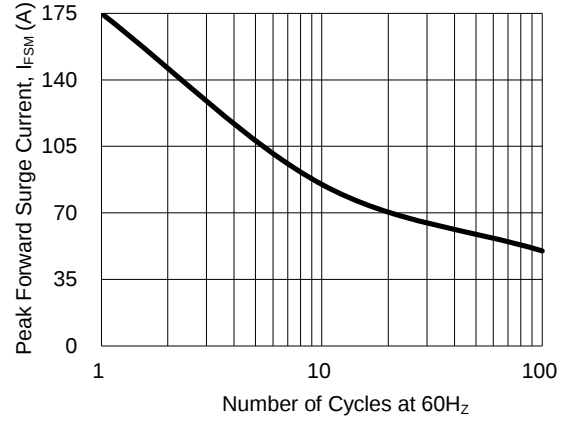


Fig.3 Typical Forward Voltage Characteristic

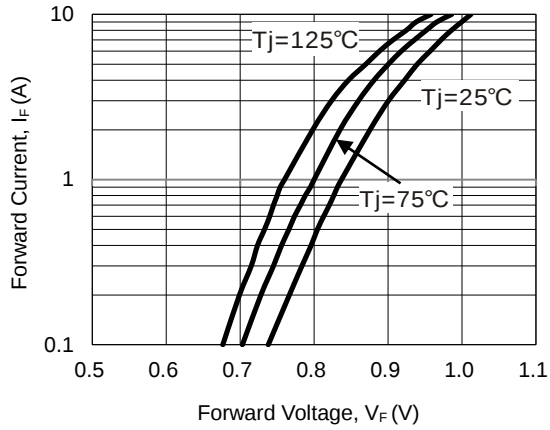
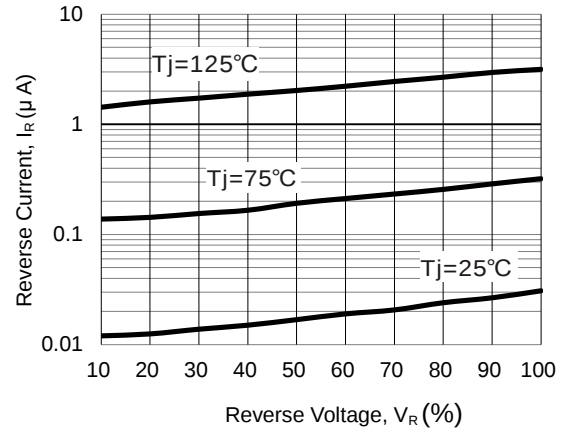


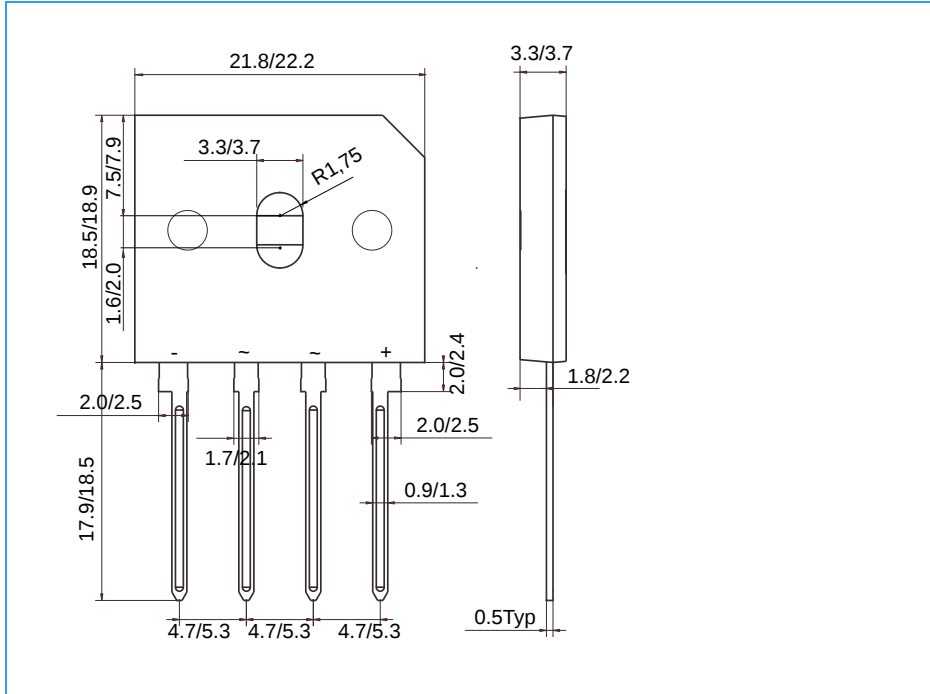
Fig.4 Typical Reverse Characteristic



Silicon Bridge Rectifiers

GBU6J - GBU6M

Package Outline Dimensions (unit: mm)



Ordering Information

Part Number	Marking	Package
GBU6J	GBU6J	GBU
GBU6K	GBU6K	GBU
GBU6M	GBU6M	GBU