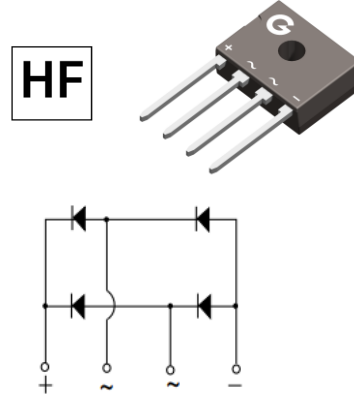


Silicon Bridge Rectifiers

GBS2J - GBS2M

Features

- Glass passivated junction
- High forward surge current capability
- Fast reverse recovery time for high efficiency
- High-temp soldering guaranteed: 260°C @ 10s.
- RoHS compliant with Halogen-free



Mechanical Data

- Case: GBS
- Molding compound: UL flammability classification rating 94-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

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

Parameter	Symbol	GBS2J	GBS2K	GBS2M	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)}	2.0			A
Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave	@T _J = 25°C I _{FSM}	50			A
I ² t Rating for Fusing	@T _J = 25°C I ² t	10.4			A ² s

Thermal Characteristics

Parameter	Symbol	GBS2J	GBS2K	GBS2M	Unit
Thermal Resistance Junction-to-Case *1	R _{θJC}	5.3			°C/W
Thermal Resistance Junction-to-Air *2	R _{θJA}	39			°C/W
Operating Junction Temperature Range	T _J	-55 ~ +150			°C
Storage Temperature Range	T _{STG}	-55 ~ +150			°C

Notes:

1. The data tested by surface mounted on p.c.b. with 65mm x 50mm x 2.4mm with aluminum plate heat sink
2. The data tested by surface mounted on p.c.b. without heat sink

Silicon Bridge Rectifiers

GBS2J - GBS2M

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 2\mu\text{A}$, GBS2J	600	-	-	V
		$I_R = 2\mu\text{A}$, GBS2K	800	-	-	V
		$I_R = 2\mu\text{A}$, GBS2M	1000	-	-	V
Forward Voltage	V_F	$I_F = 2\text{A}$, Per Diode	-	-	1.0	V
Maximum Peak Reverse Current	I_R	Rated V_R , $T_J = 25^\circ\text{C}$	-	-	5	μA
		Rated V_R , $T_J = 125^\circ\text{C}$	-	-	300	μA

Silicon Bridge Rectifiers

GBS2J - GBS2M

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

Fig.1 Forward Current Derating Curve

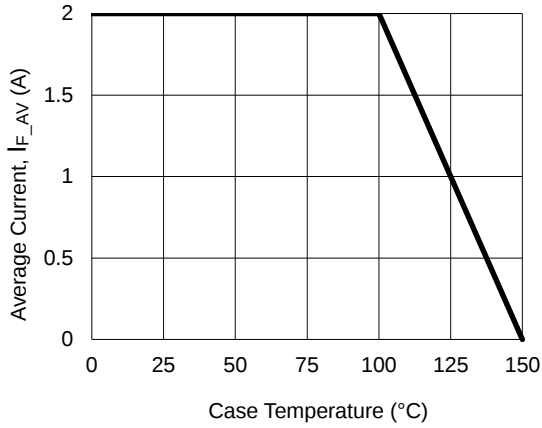


Fig.2 Surge Current Derating Curve

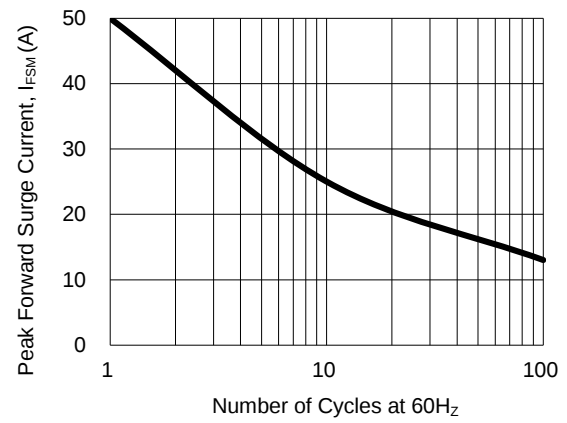


Fig.3 Typical Forward Voltage Characteristics

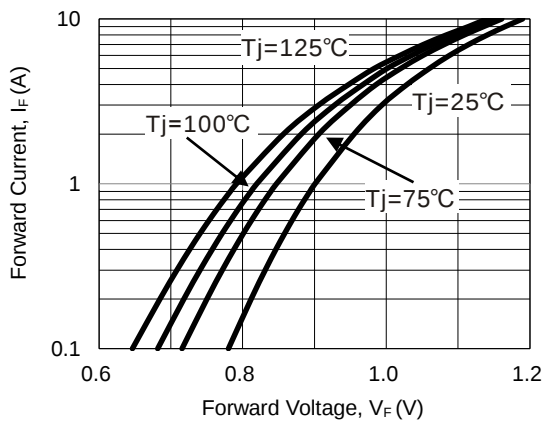
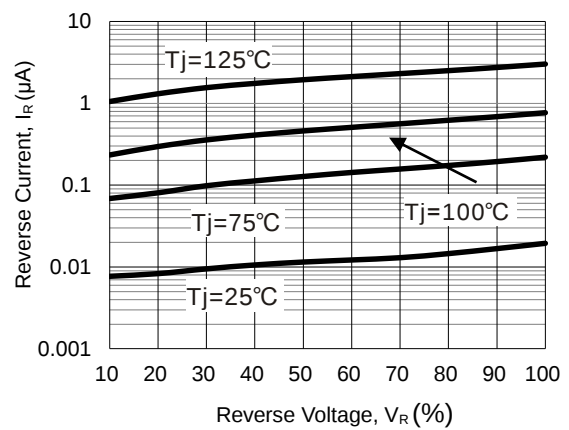


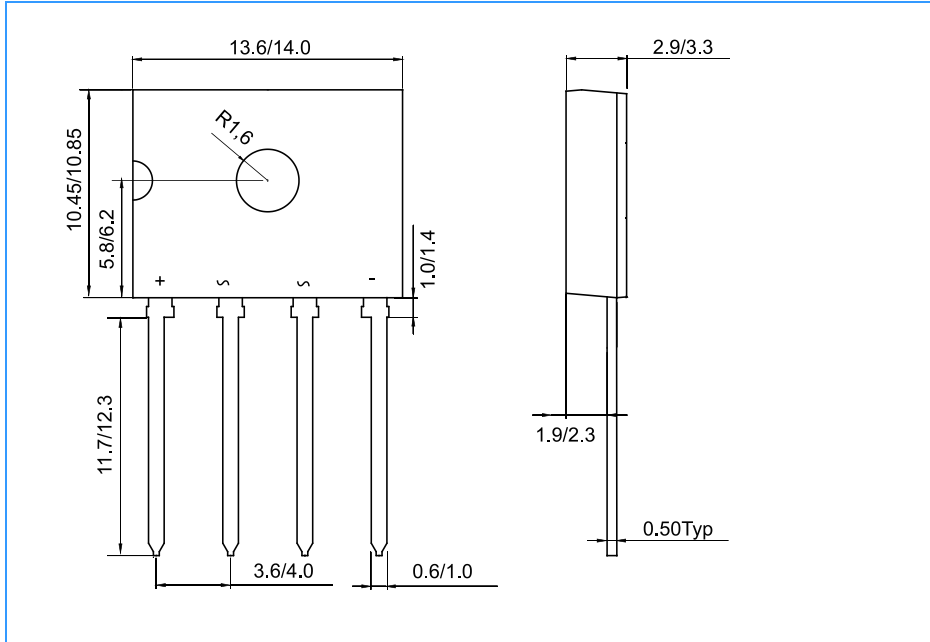
Fig.4 Typical Reverse Characteristics



Silicon Bridge Rectifiers

GBS2J - GBS2M

Package Outline Dimensions (unit: mm)



Ordering Information

Part Number	Marking	Package
GBS2J	GBS2J	GBS
GBS2K	GBS2K	GBS
GBS2M	GBS2M	GBS