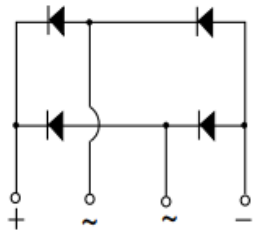
Silicon Bridge Rectifiers

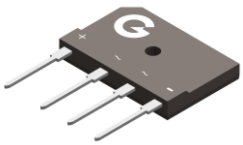
GBJ35J – GBJ35M

Features

HF

- 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





GBJ

Mechanical Data

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

Ordering Information

Part Number	Package	Marking Code
GBJ35J	GBJ	GBJ35J
GBJ35K	GBJ	GBJ35K
GBJ35M	GBJ	GBJ35M

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

Parameter	Symbol	GBJ35J	GBJ35K	GBJ35M	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	$I_{F(AV)}$	35			A
Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave	I_{FSM}	400			A
I^2t Rating for Fusing	I^2t	664			A^2s

Thermal Characteristics

Parameter	Symbol	GBJ35J	GBJ35K	GBJ35M	Unit
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	1.5			°C/W
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	16			°C/W
Operating Junction Temperature Range	T_J	-55 ~ +150			°C
Storage Temperature Range	T_{STG}	-55 ~ +150			°C

Note 1: Device mounted on 65mm x 50mm x 2.4mm aluminum plate heat sink

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R = 10μA, GBJ35J	600	-	-	V
		I_R = 10μA, GBJ35K	800	-	-	V
		I_R = 10μA, GBJ35M	1000	-	-	V
Forward Voltage	V_F	I_F = 17.5A, Per Diode	-	-	1.05	V
Maximum Peak Reverse Current	I_R	Rated V_R, T_J = 25°C	-	-	5	μA
		Rated V_R, T_J = 125°C	-	-	300	μA

Ratings and Characteristic Curves (@ T_A = 25°C unless otherwise specified)

Fig.1 Forward Current Derating Curve

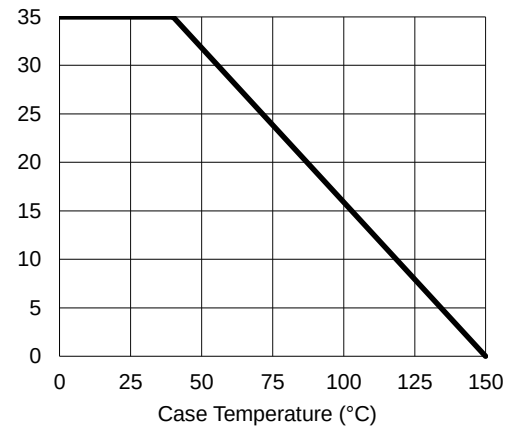


Fig.2 Surge Current Derating Curve

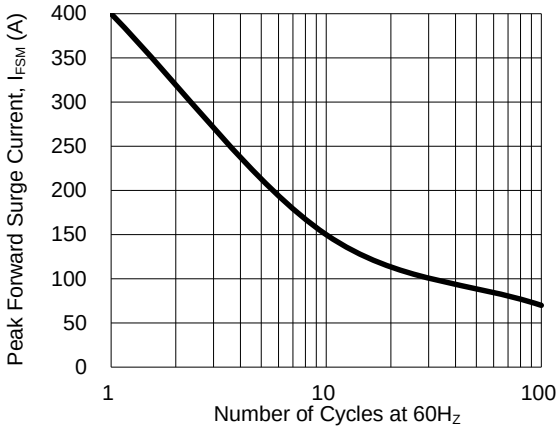


Fig.3- Typical Forward Voltage Characteristic

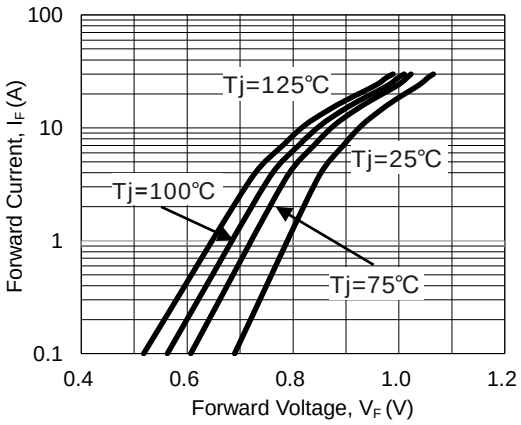
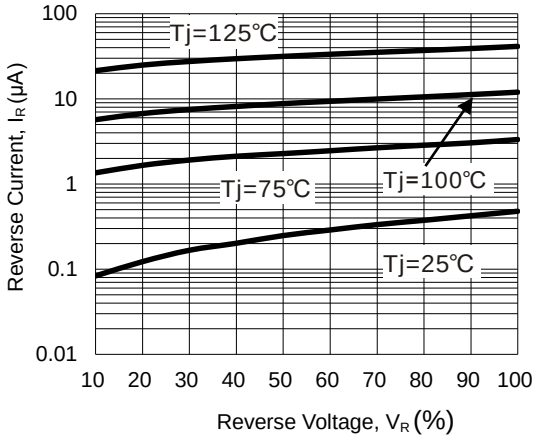


Fig.4- Typical Reverse Characteristic



Package Outline Dimensions (unit: mm)