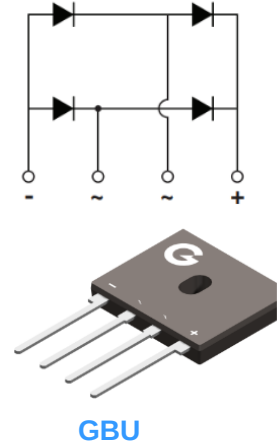


Features

- 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: GBU
- 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
GBU8J	GBU	GBU8J
GBU8K	GBU	GBU8K
GBU8M	GBU	GBU8M

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

Parameter	Symbol	GBU8J	GBU8K	GBU8M	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)}	8			A
Peak Forward Surge Current, 8.3ms Single Half-Sine-Wave	I _{FSM}	200			A
I ² t Rating for Fusing	I ² t	166			A ² s

Thermal Characteristics

Parameter	Symbol	GBU8J	GBU8K	GBU8M	Unit
Thermal Resistance Junction-to-Case *1	R _{θJC}	4.2			°C/W
Thermal Resistance Junction-to-Air *2	R _{θJA}	35			°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. of 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

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 2\mu\text{A}$, GBU8J	600	-	-	V
		$I_R = 2\mu\text{A}$, GBU8K	800	-	-	V
		$I_R = 2\mu\text{A}$, GBU8M	1000	-	-	V
Forward Voltage	V_F	$I_F = 4\text{A}$, 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

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

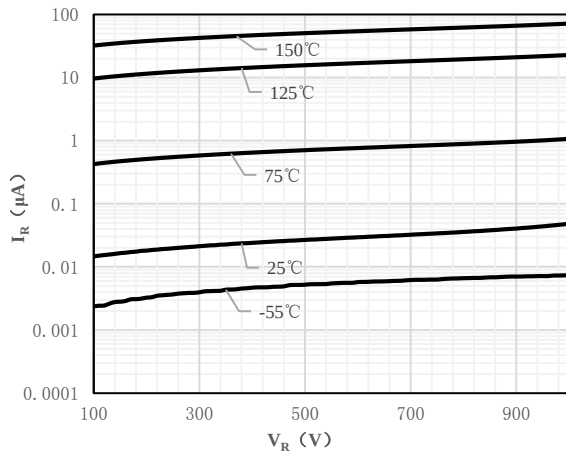


Fig 1 Typical Reverse Characteristic

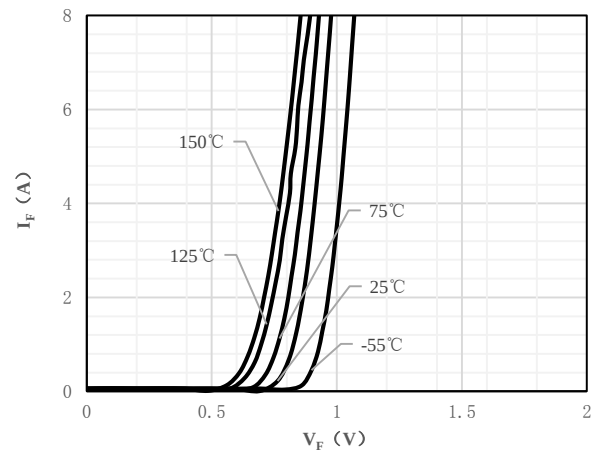


Fig 2 Typical Forward Characteristics

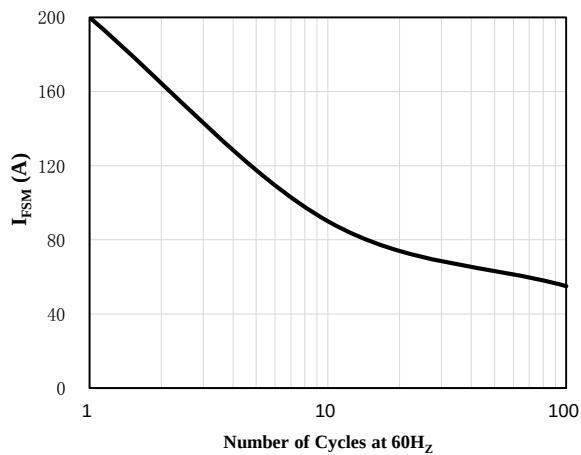


Fig 3 Surge Current Derating Curve

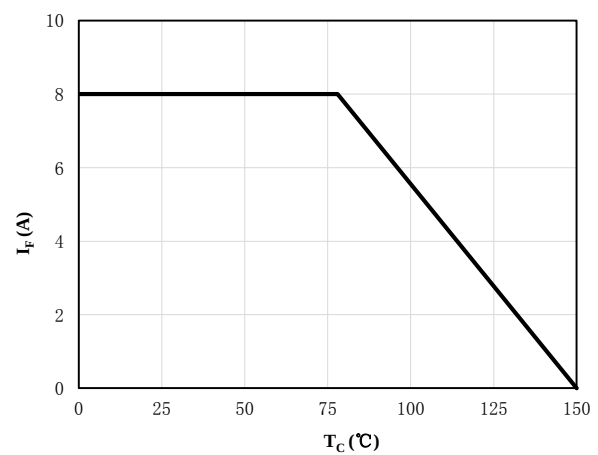


Fig 4 Forward Current Derating Curve

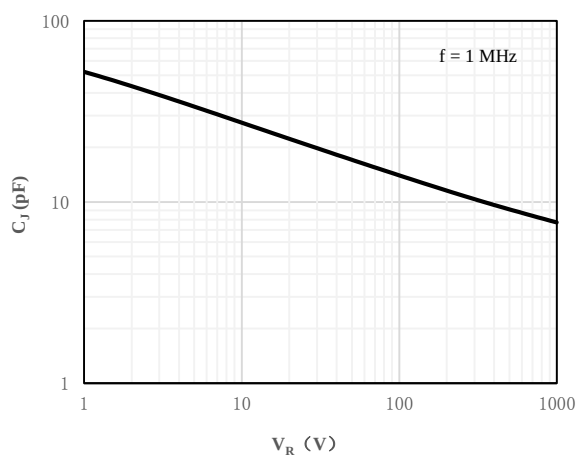


Fig 5 Capacitance vs. Reverse Voltage

Package Outline Dimensions (unit: mm)

