Silicon Bridge Rectifiers
FGBU25JL

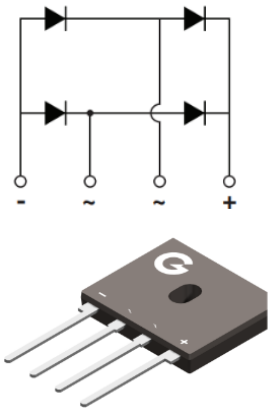
Features

- Glass passivated junction
- High forward surge current capability
- Fast reverse recovery time for high efficiency
- High temperature soldering 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



GBU

Ordering Information

Part Number	Package	Marking Code
FGBU25JL	GBU	FGBU25JL

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
RMS Reverse Voltage	V_{RMS}	420	V
DC Blocking Voltage	V_{DC}	600	V
Average Forward Output Current	$I_{F(AV)}$	25	A
Peak Forward Surge Current, 8.3ms Single Half Sine wave	I_{FSM}	350	A
I^2t Rating for Fusing	I^2t	508	A^2s

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	8	°C/W
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	15	°C/W
Operating Junction Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-55 ~ +150	°C

Note 1: The data tested by surface mounted on p.c.b. with 55mm x 40mm x 2mm with 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 = 2μA	600	-	-	V
Forward Voltage	V_F	I_F = 12.5A, Per Diode	-	-	0.92	V
Maximum Peak Reverse Current	I_R	Rated V_R, T_J = 25°C	-	-	10	μA
		Rated V_R, T_J = 125°C	-	-	500	μA
Reverse Recovery Time	trr	I_F = 0.5A, I_{RM} = 1A, $I_{R(REC)}$ = 0.25A, Per Diode	-	472	-	ns

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

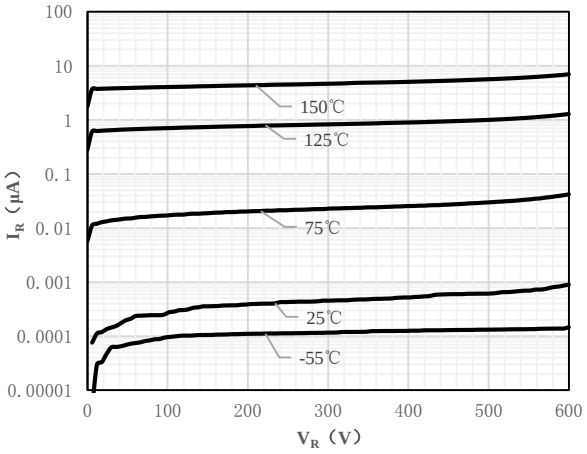


Fig 1 Typical Reverse Characteristic

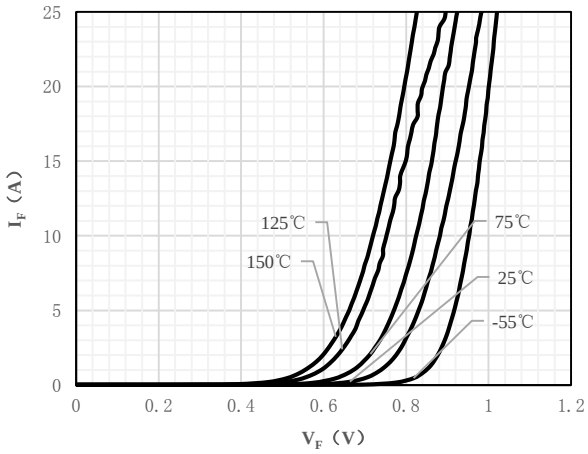


Fig 2 Typical Forward Characteristics

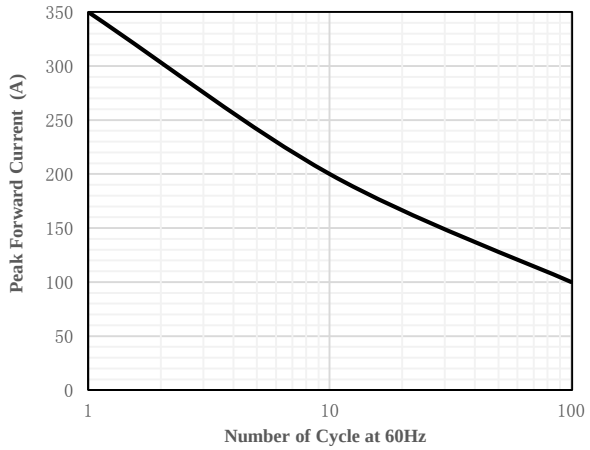


Fig 3 Surge Current Derating Curve

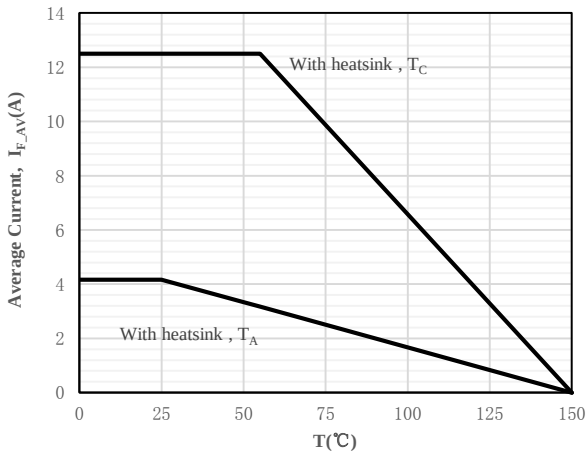


Fig 4 Forward Current Derating Curve

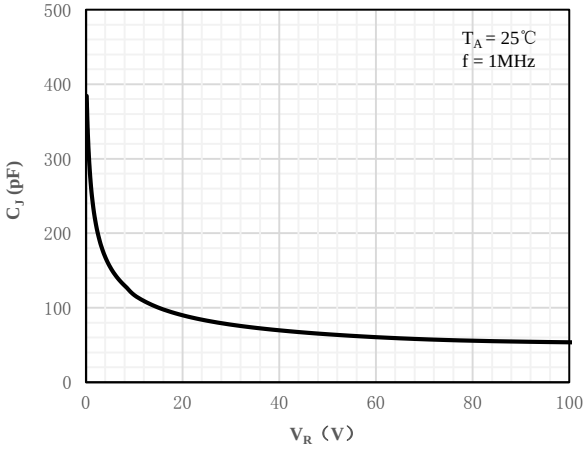


Fig 5 Capacitance vs. Reverse Voltage

Package Outline Dimensions (unit: mm)