

# GBU25KH(LS)

## GLASS PASSIVATED BRIDGE RECTIFIERS

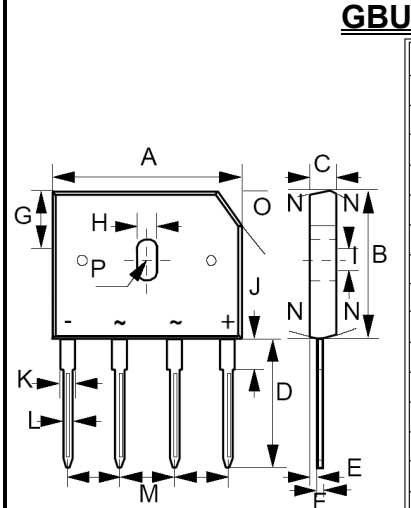
**REVERSE VOLTAGE – 800Volts**  
**FORWARD CURRENT – 25 Amperes**

### FEATURES

- Rating to 800V PRV
- Ideal for printed circuit board
- Reliable construction utilizing molded plastic Technique
- UL recognition file # E95060
- “Halogen-free” (GBU25KH\_HF)

### MECHANICAL DATA

- Case: GBU
- Polarity indicator: As marked on the body
- Case Material: Green molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl.)
- Weight: 0.14 ounces, 3.9 grams
- Component in accordance to RoHs 2002/95/EC
- Mounting position: Any



### GBU

GBU		
DIM.	MIN.	MAX.
A	21.80	22.30
B	18.30	18.80
C	3.30	3.56
D	17.50	18.00
E	0.76	1.00
F	0.46	0.56
G	7.40	7.90
H	3.50	4.10
I	1.65	2.16
J	2.25	2.75
K	1.95	2.35
L	1.02	1.27
M	4.83	5.33
N	7.0° TYPICAL	
O	3.2 x 45°	
P	1.90 RADIUS	
All Dimensions in millimeter		

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

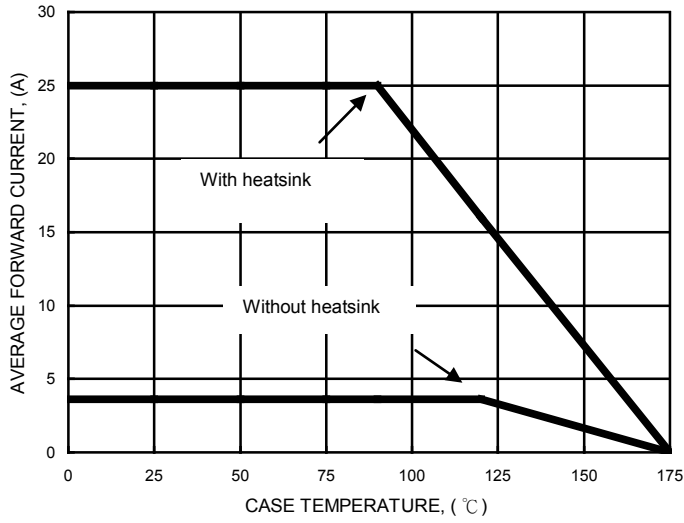
PARAMETER	SYMBOL	GBU25KH	UNIT	
Device marking code	Note	GBU25KH	---	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	800	V	
Average Rectified Output Current	$I_{F(AV)}$	25 3.6	A	
Peak Forward Surge Current	$I_{FSM}$	350	A	
8.3ms single half sine-wave		280		
Peak Forward Surge Current	$I_{FSM}$	700	A	
1.0ms single half sine-wave		560		
$I^2t$ Rating for fusing ( t = 8.3ms)	$I^2t$	508.3	A <sup>2</sup> S	
Storage temperature range	$T_{STG}$	-55 to +150	°C	
Operating junction temperature range	$T_J$	-40 to +175	°C	
PARAMETER	TEST CONDITIONS	SYMBOL	Max.	UNIT
Forward Voltage (1)	$I_F=12.5A$ $T_J=25^\circ C$	$V_F$	1.05	V
Leakage Current	$V_R=800V$ $T_J=25^\circ C$	$I_R$	10	uA
THERMAL CHARACTERISTIC	SYMBOL	Typical	UNIT	
Typical Junction Capacitance per element (Note 1)	$C_j$	93	pF	
Typical thermal resistance_Junction to Case (2)	$R_{\theta JC}$	1.6	°C/W	
Typical thermal resistance_Junction to Lead (3)	$R_{\theta JL}$	1.0	°C/W	

Note : (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC  
 (2) Thermal Resistance Junction to Case, device mounted on heatsink  
 (3) Thermal Resistance Junction to Lead, device mounted on heatsink

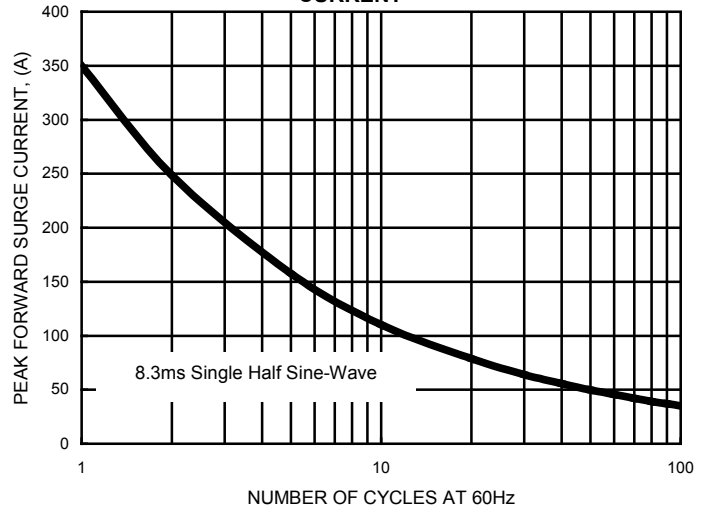
REV.4 , Sep-2021, KBDJ50

**RATING AND CHARACTERISTIC CURVES**  
**GBU25KH**

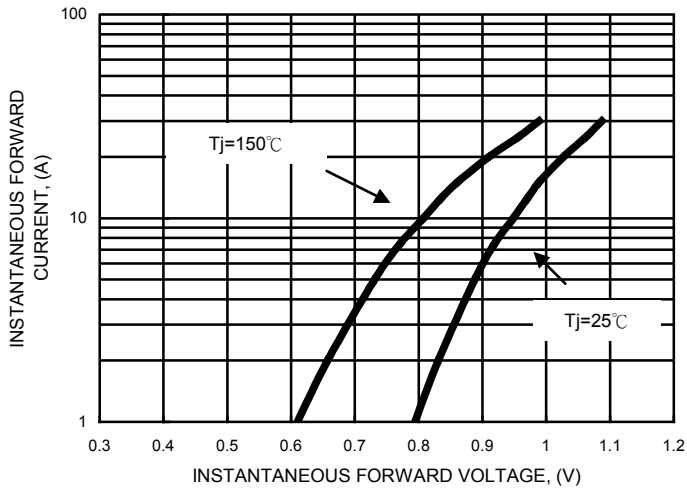
**FIG.1- FORWARD CURRENT DERATING CURVE**



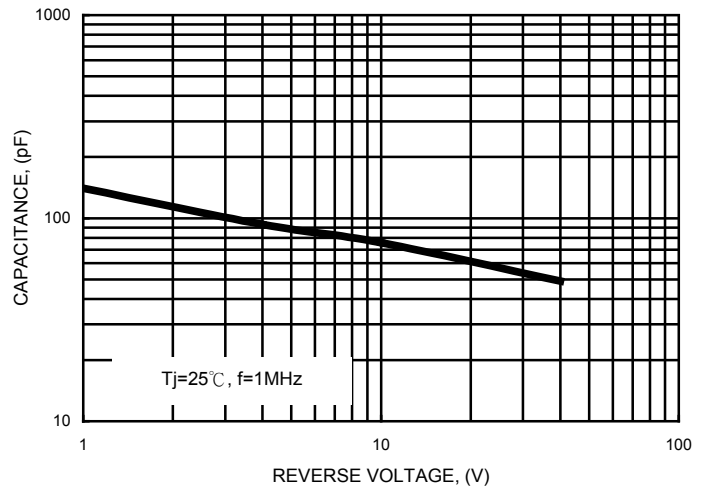
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



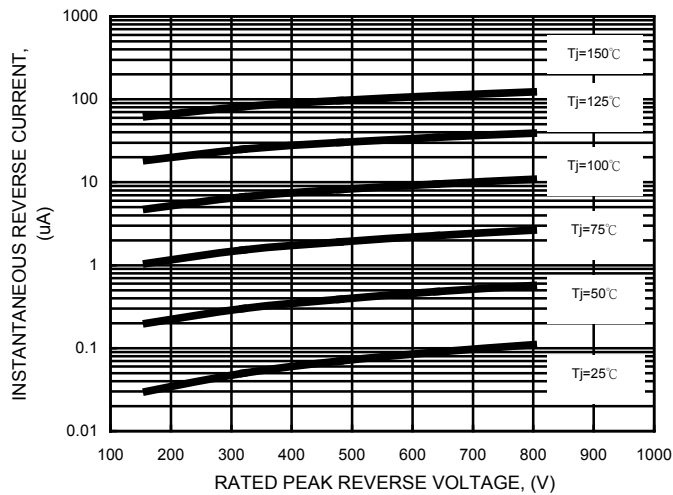
**FIG.3- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4- TYPICAL JUNCTION CAPACITANCE**



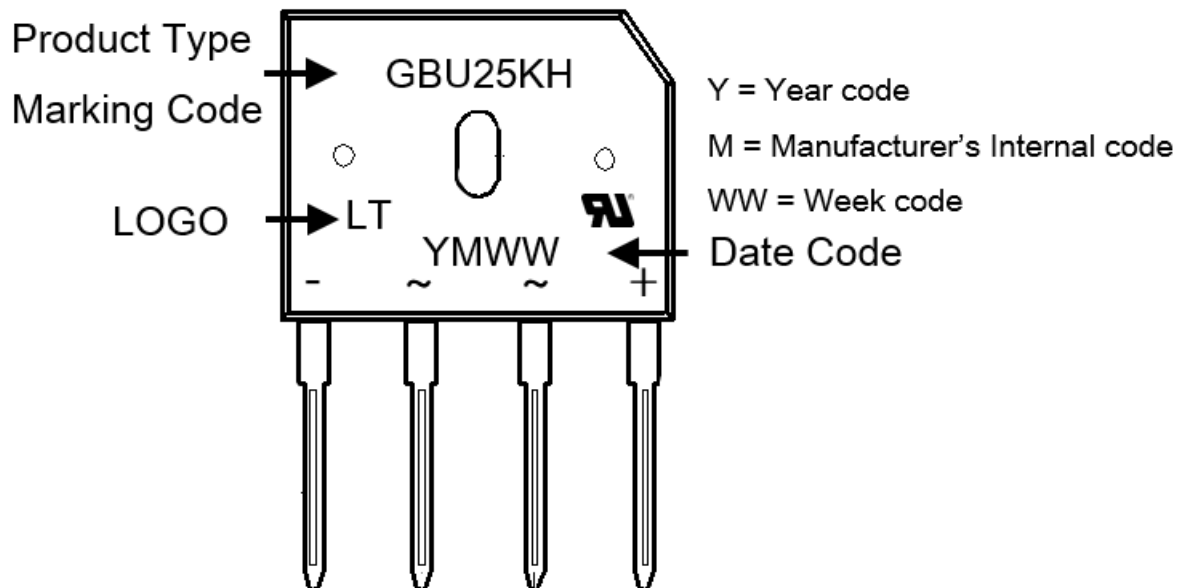
**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**Ordering Information :**

Part Number	Case	Packaging
GBU25KH_HF	GBU	20/Tube

**Marking Information :**



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