

Silicon Bridge Rectifiers

GBU4A--GBU4M

FEATURES

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has U/L flammability classification 94V-0
- Mounting position: Any
- Glass passivated chip junctions



Lead-free

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

Characteristic	Symbol	GBU4A	GBU4B	GBU4D	GBU4G	GBU4J	GBU4K	GBU4M	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward Output current @T _C =100°C (note1)	I _{F(AV)}	4.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I _{FSM}	150.0							A

Thermal Characteristics

Characteristic	Symbol	GBU4A	GBU4B	GBU4D	GBU4G	GBU4J	GBU4K	GBU4M	UNITS	
Typical junction capacitance per element (note 3)	C _J	100				45				p F
Typical thermal resistance (note2) (note1)	R _{θJA} R _{θJC}	22.0 4.2								°C/W
Operating junction temperature range	T _J	- 55 ---- + 150							°C	
Storage temperature range	T _{STG}	- 55 ---- + 150							°C	

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

Characteristic	Symbol	GBU4A	GBU4B	GBU4D	GBU4G	GBU4J	GBU4K	GBU4M	UNITS	
Maximum instantaneous forward voltage @2.0A	V _F	1.0							V	
Maximum reverse current @T _A =25 °C at rated DC blocking voltage @T _A =125°C	I _R					5.0 50				μ A

NOTE: 1. Unit case mounted on 1.6x1.6x0.06" thick (4.0x4.0x0.15cm) Al. Plate.

2. Units mounted on P.C.B. with 0.5x0.5" (12x12mm) copper pads and 0.375" (9.5mm) lead length.

3. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts.



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PACKAGE OUTLINE DIMENSIONS

GBU		
Dim	Min	Max
A	22.00	22.40
B	18.40	18.80
C	3.40	3.95
C1	2.50	3.00
E	0.40	0.60
F	17.00min	
F1	1.70	2.30
I1	2.30	2.60
I2	0.95	1.25
K	4.70	5.30
P	R1.9typical	
All Dimensions in mm		

PACKAGE INFORMATION

Device	Package	Shipping
GBU4A--GBU4M	GBU	500 Units/Box



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FIG.1 -- DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

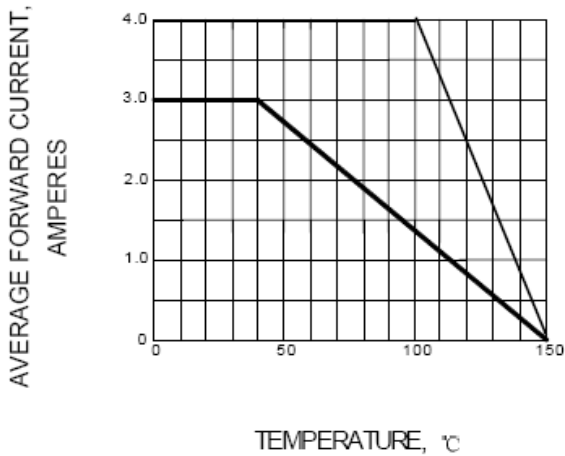


FIG.2 -- TYPICAL FORWARD CHARACTERISTIC

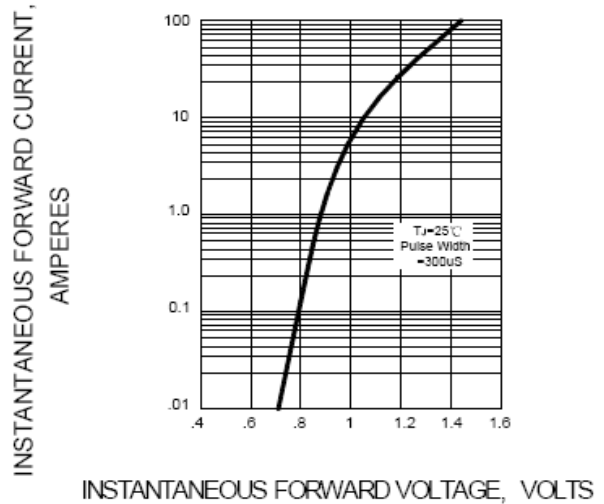


FIG.3 -- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

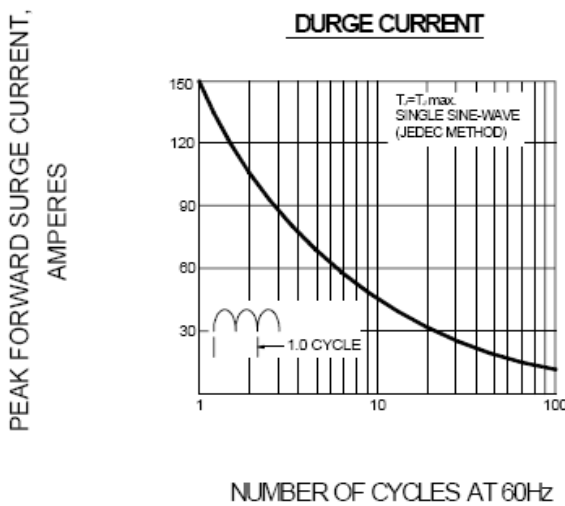


FIG.4 -- TYPICAL REVERSE CHARACTERISTIC

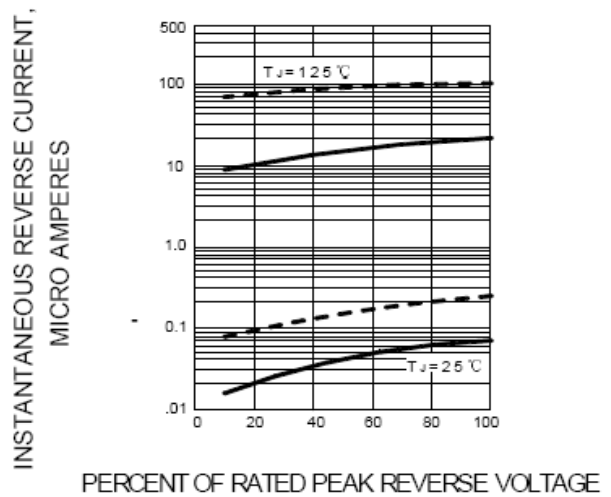


FIG.5 -- TYPICAL JUNCTION CAPACITANCE PER LEG

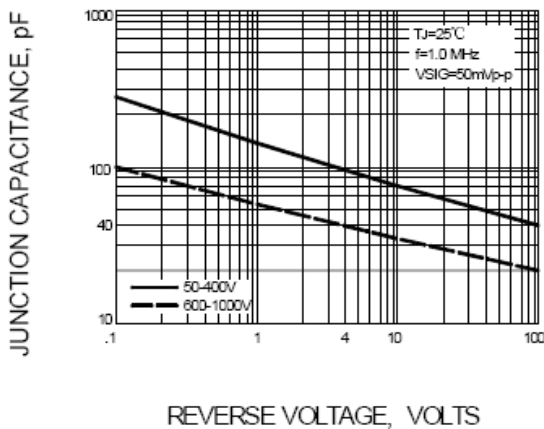


FIG.6 -- TYPICAL TRANSIENT THERMAL IMPEDANCE

