



**DC COMPONENTS CO., LTD.**  
RECTIFIER SPECIALISTS

**GBU4A  
THRU  
GBU4M**

**TECHNICAL SPECIFICATIONS OF GLASS PASSIVATED BRIDGE RECTIFIER**

**VOLTAGE RANGE - 50 to 1000 Volts**

**CURRENT - 4.0 Amperes**

**FEATURES**

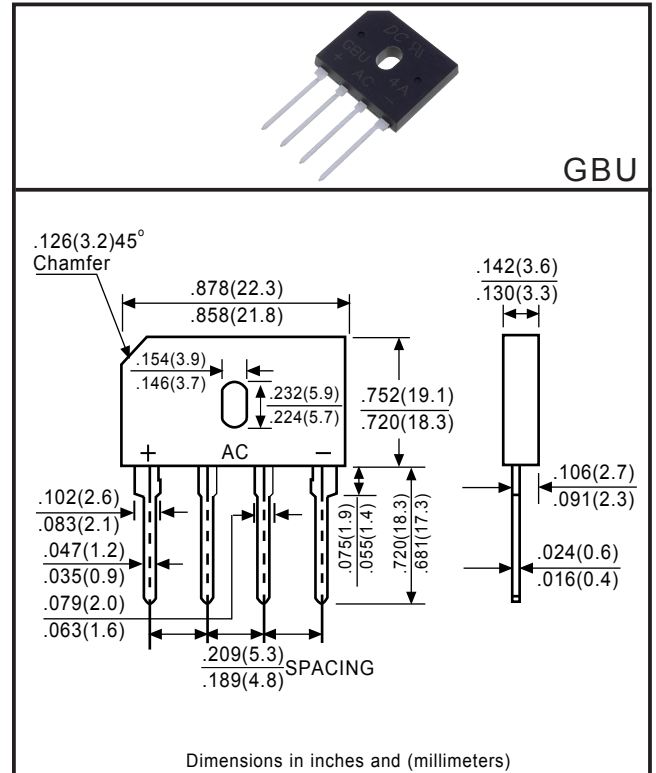
- \* High forward surge capability
- \* High current capability
- \* Low forward voltage drop
- \* Glass passivated junction

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: UL 94-V0 rated flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 6.1 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.



	SYMBOL	GBU4A	GBU4B	GBU4D	GBU4G	GBU4J	GBU4K	GBU4M	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward (with heatsink Note 2) Rectified Current at T <sub>A</sub> = 100°C (without heatsink)	I <sub>O</sub>	4.0 2.4							Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150							Amps	
Maximum Instantaneous Forward Voltage at 4.0A DC	V <sub>F</sub>	1.1							Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T <sub>J</sub> = 25°C	I <sub>R</sub>	10							μAmps
	@T <sub>J</sub> = 125°C		100							
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	45							pF	
I <sup>2</sup> t Rating for Fusing ( t<8.3mS)	I <sup>2</sup> t	93.4							A <sup>2</sup> s	
Typical Thermal Resistance to case with heatsink (Note 2)	R <sub>θJC</sub>	2.2							°C/W	
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150							°C	

Note 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2. Device mounted on 50mm\*50mm\*1.6mm Cu plate heatsink.

# RATING AND CHARACTERISTIC CURVES (GBU4A THRU GBU4M)

FIG. 1  
TYPICAL FORWARD CURRENT  
DERATING CURVE

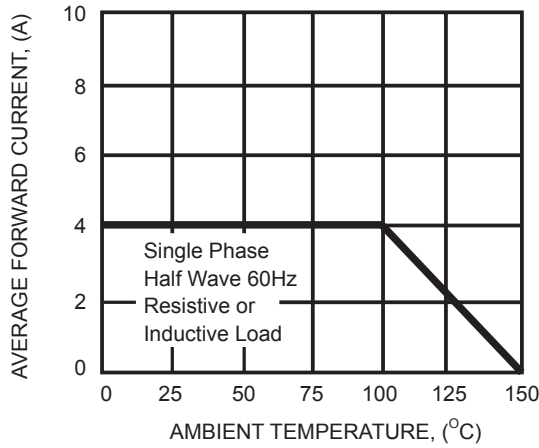


FIG. 2  
MAXIMUM NON-REPETITIVE FORWARD  
SURGE CURRENT

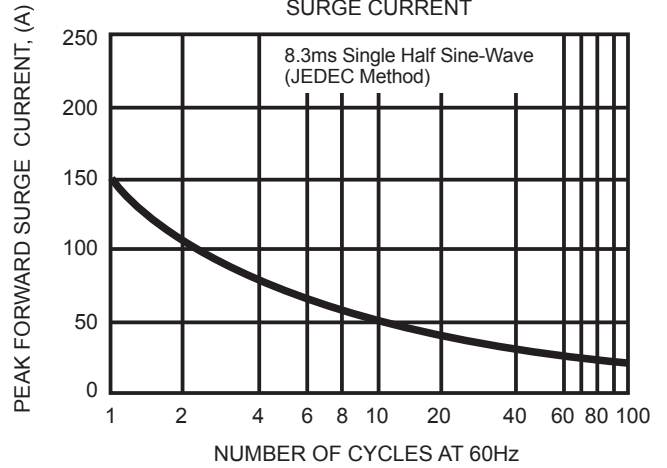


FIG. 3  
TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

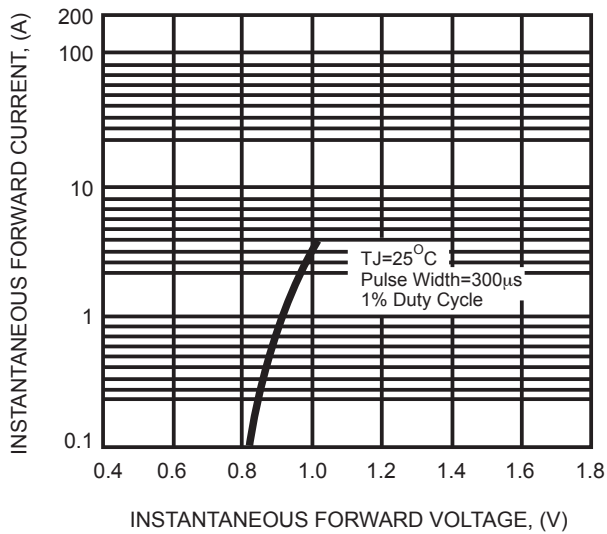


FIG. 4  
TYPICAL REVERSE CHARACTERISTICS

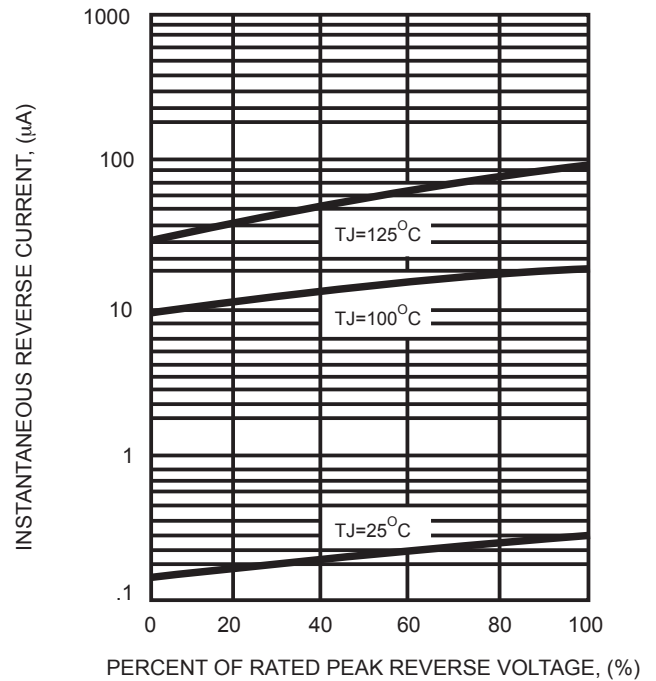
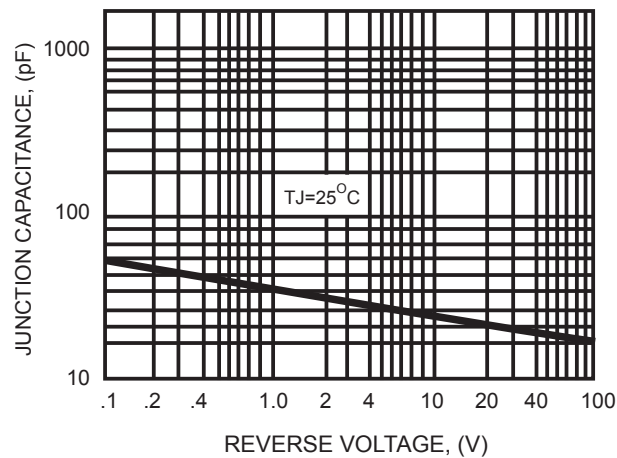


FIG. 5  
TYPICAL JUNCTION CAPACITANCE



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