

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 20 Amperes

**FEATURES**

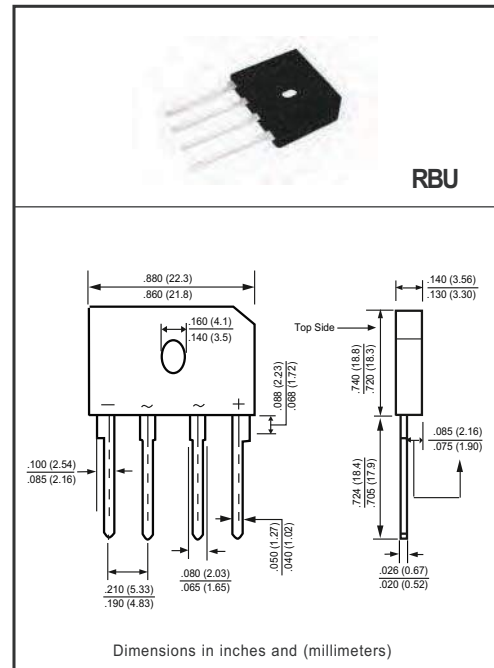
- \* Low leakage
- \* Low forward voltage
- \* Surge overload rating : 300 amperes peak
- \* Mounting position: Any
- \* Ideal for printed circuit boards
- \* High forward surge current capability

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-O

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.



**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

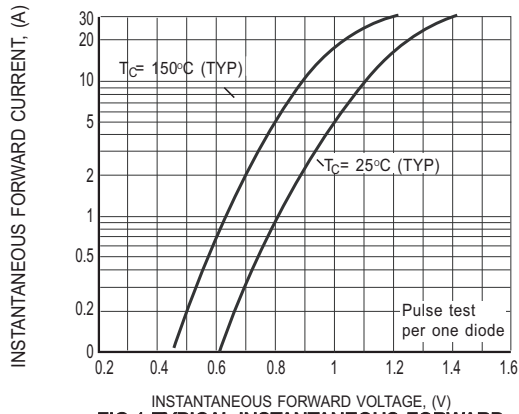
RATINGS	SYMBOL	RBU2001M	RBU2002M	RBU2003M	RBU2004M	RBU2005M	RBU2006M	RBU2007M	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>C</sub> = 100°C (Note 4)	I <sub>O</sub>	20.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	300							Amps
Typical Current Squared Time	i <sup>2</sup> t	373.3							A <sup>2</sup> S
Isolation Voltage of case	V <sub>ISO</sub>	2500							V <sub>AC</sub>
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	1.5							°C/W
	R <sub>θJA</sub>	22							
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

**ELECTRICAL CHARACTERISTICS (@ TA=25 °C unless otherwise noted)**

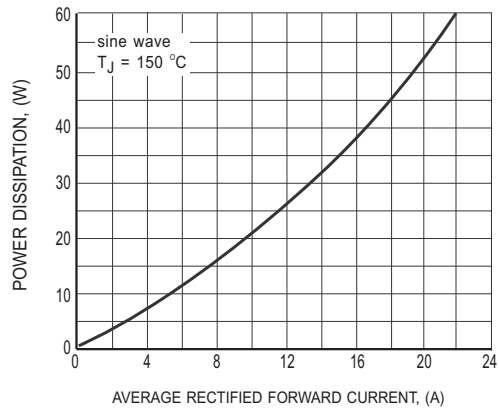
CHARACTERISTICS	SYMBOL	RBU2001M	RBU2002M	RBU2003M	RBU2004M	RBU2005M	RBU2006M	RBU2007M	UNITS
Maximum Instantaneous Forward Voltage at 10A DC	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ T <sub>A</sub> = 25°C	5.0							uAmps
	@ T <sub>A</sub> = 150 °C	2.0							mAmps

- NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
2. "ROHScompliant"  
3. Equivalent to Vishay's GBU12 . 5 Series.  
4. Heat Sink Temperature.  
5. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

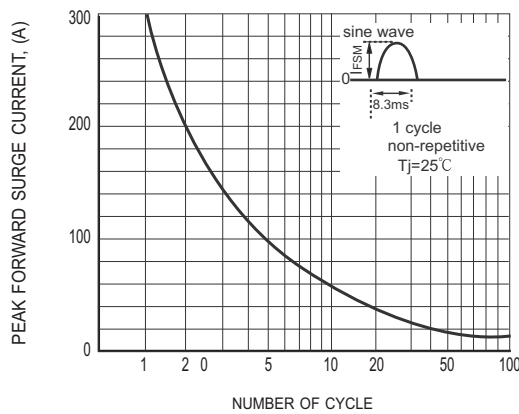
# RATING AND CHARACTERISTICS CURVES ( RBU2001M THRU RBU2007M )



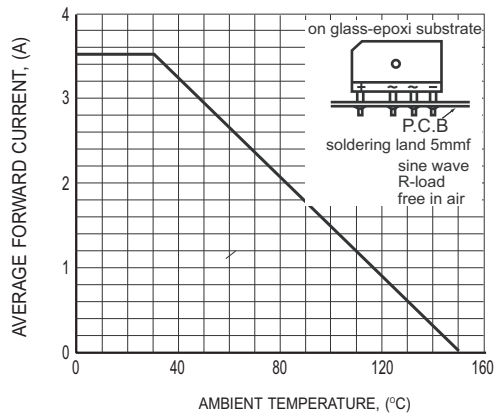
**FIG.1 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



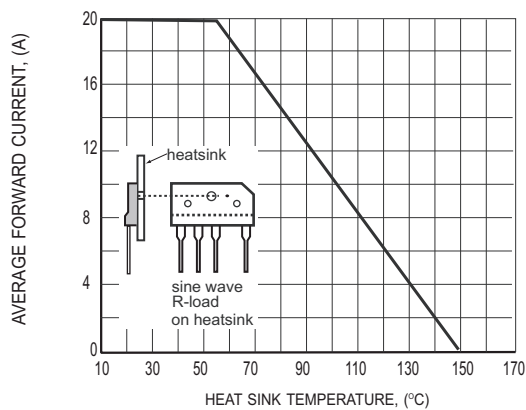
**FIG.2 POWER DISSIPATION**



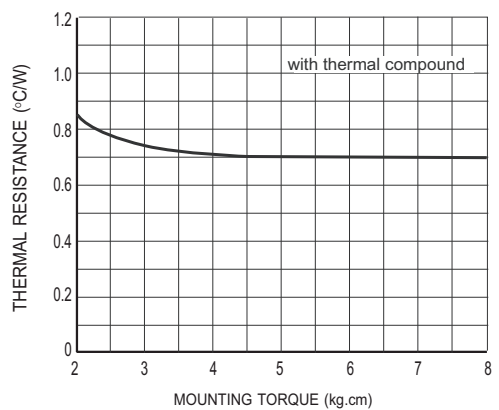
**FIG.3 SURGE FORWARD CURRENT CAPABILITY**



**FIG.4 TYPICAL FORWARD CURRENT DERATING CURVE**

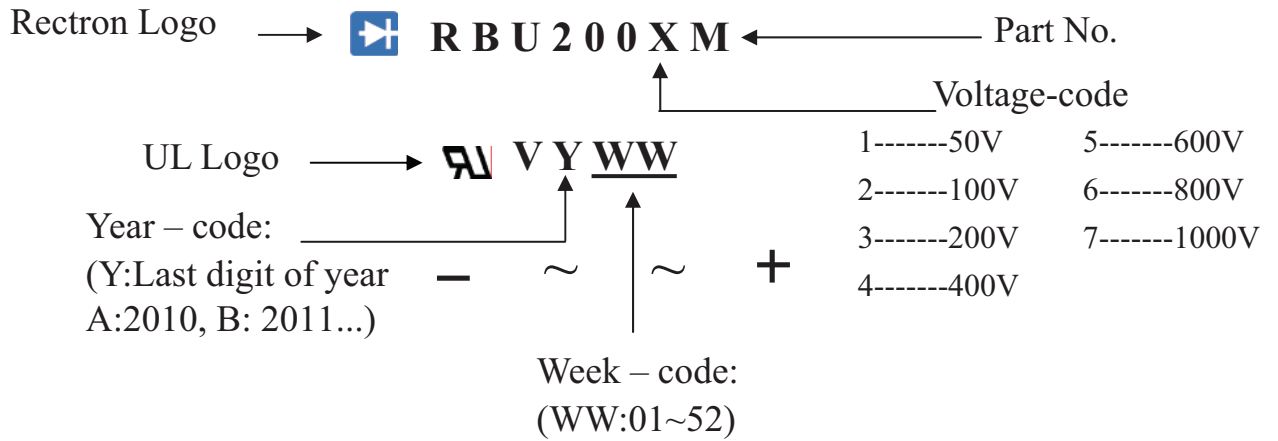


**FIG.5 TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG.6 CONTACT THERMAL RESISTANCE fcf**

## Marking Description



# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

## TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
RBU	-C	1,000	490*135*110	510*293*131	2,000	13.62

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