



**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 4.0 Amperes

**FEATURES**

- \* Ideal for printed circuit board
- \* Surge overload rating: 130 amperes peak
- \* Mounting position: Any

**MECHANICAL DATA**

- \* UL listed the recognized component directory, file #E252754
- \* Epoxy: Device has UL flammability classification 94V-O



**RBU**

Please See Page 3 for Dimension

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

MAXIMUM RATINGS (@ T<sub>A</sub>=25 °C unless otherwise noted)

RATINGS	SYMBOL	RBU401M	RBU402M	RBU403M	RBU404M	RBU405M	RBU406M	RBU407M	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>A</sub> = 50°C	I <sub>O</sub>	4.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	130							Amps
Typical Current Squared Time	I <sup>2</sup> <sub>t</sub>	70.1							A <sup>2</sup> /Sec
Typical Junction Capacitance (Note 3)	C <sub>J</sub>	40							pF
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	4.2							°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 (@T<sub>A</sub>=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	RBU401M	RBU402M	RBU403M	RBU404M	RBU405M	RBU406M	RBU407M	UNITS
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>A</sub> = 25°C	5.0							uAmps
	@ T <sub>A</sub> = 125°C	500							

- NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
 2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".  
 3. Measured at 1MHz and applied reverse voltage of 4.0 voltage.  
 4. Equivalent to Vishay's GBU4 Series.  
 5. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

2010-05  
REV:C

# RATING AND CHARACTERISTICS CURVES ( RBU401M THRU RBU407M )

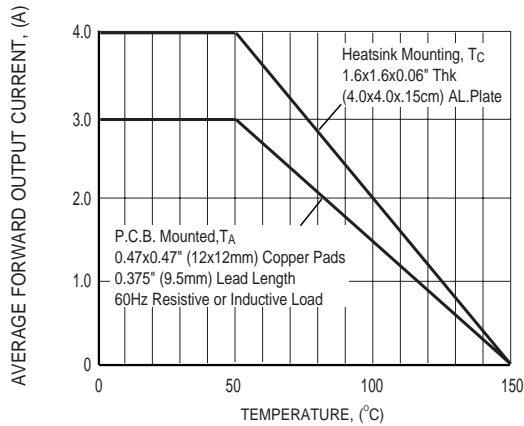


FIG.1 DERATING CURVE OUTPUT RECTIFIED CURRENT

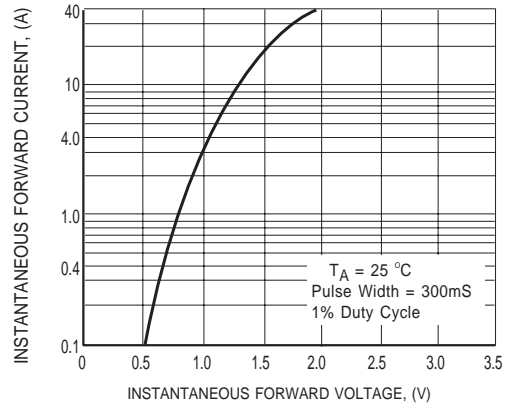


FIG.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

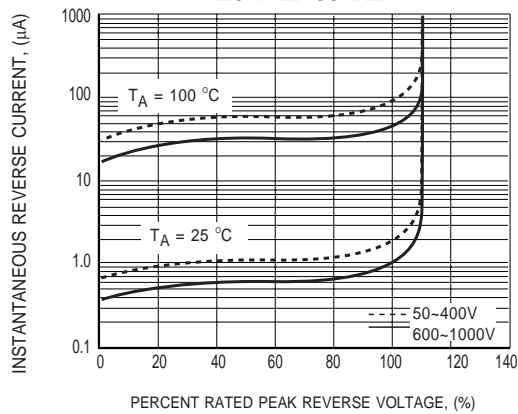


FIG.3 TYPICAL REVERSE CHARACTERISTICS

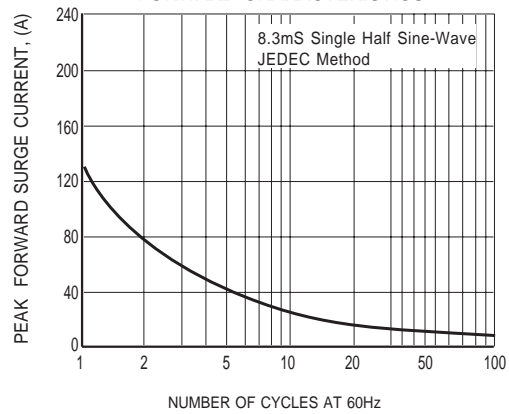


FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

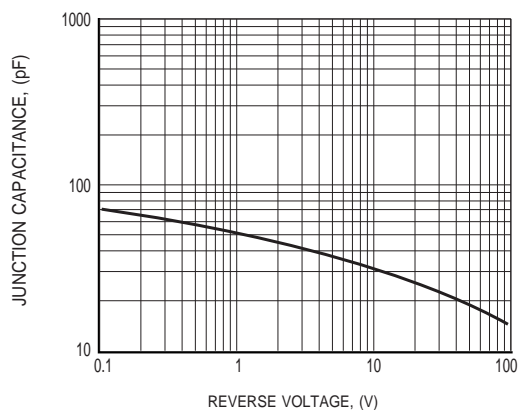


FIG.5 TYPICAL JUNCTION CAPACITANCE PER LEG

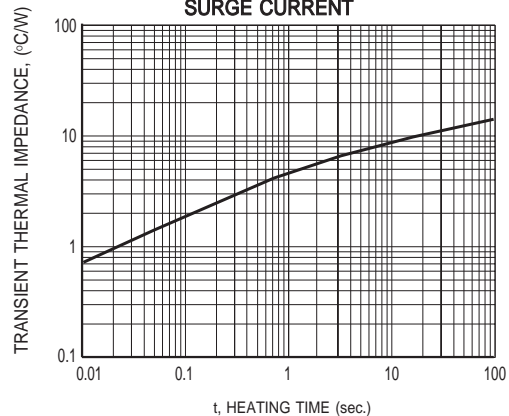
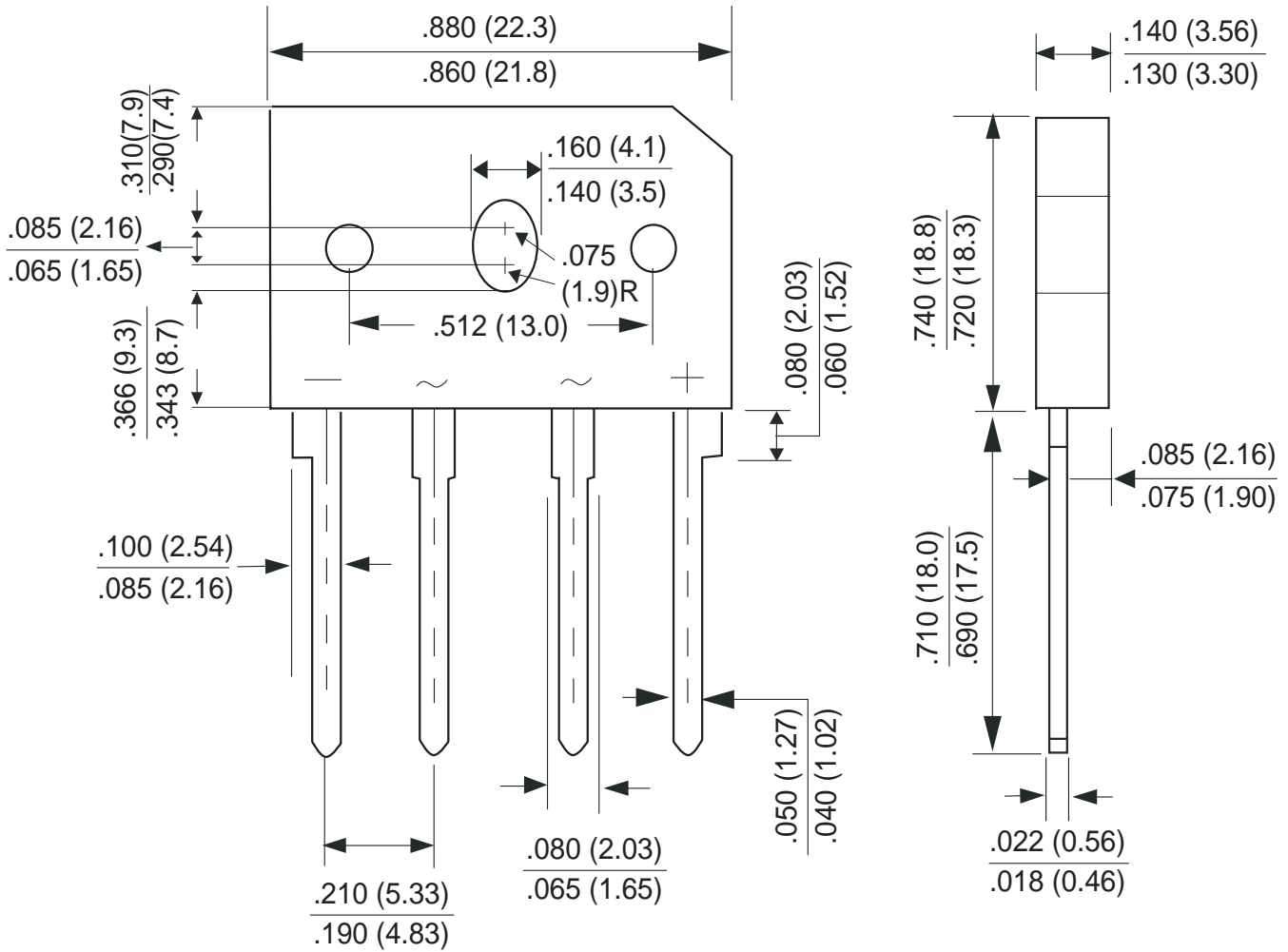
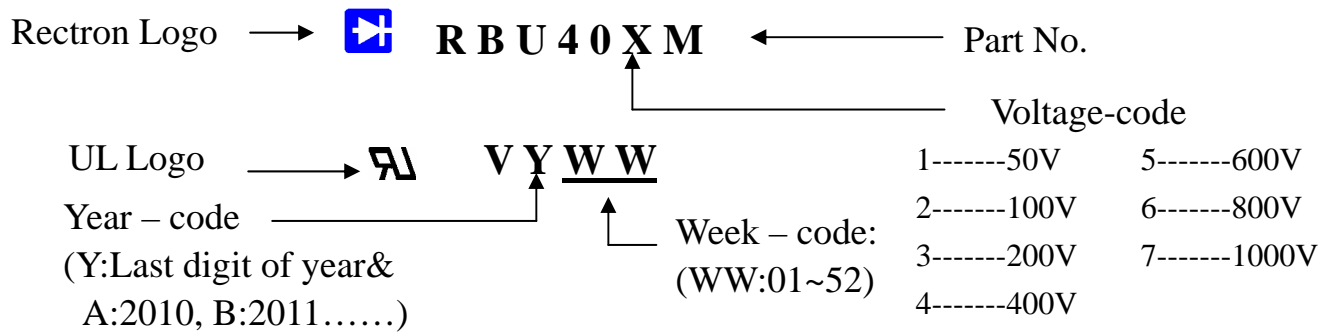


FIG.6 TYPICAL TRANSIENT THERMAL IMPEDANCE

## Dimensions in inches and (millimeters)



## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
RBU	-B	450	240*239*35	502*251*126	2,700	13.00

### 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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