

# RBV600 - RBV610

# SILICON BRIDGE RECTIFIERS

**PRV : 50 - 1000 Volts**

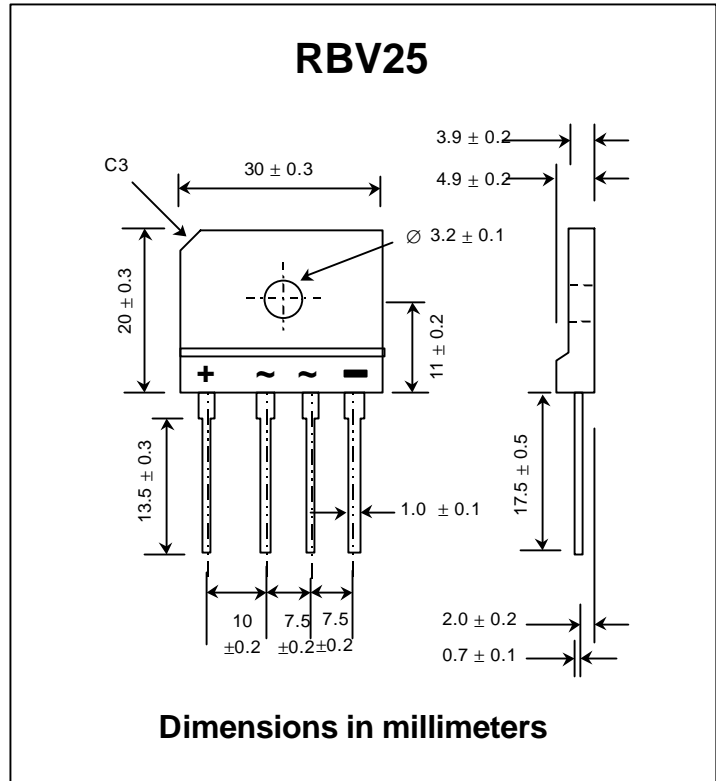
**Io : 6.0 Amperes**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* High case dielectric strength of 2000 V<sub>DC</sub>
- \* Ideal for printed circuit board
- \* Very good heat dissipation

### MECHANICAL DATA :

- \* Case : Reliable low cost construction utilizing molded plastic technique
- \* Epoxy : UL94V-O rate flame retardant
- \* Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 7.7 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

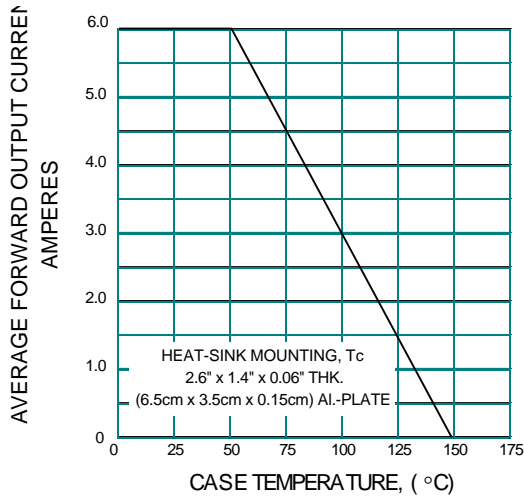
RATING	SYMBOL	RBV 600	RBV 601	RBV 602	RBV 604	RBV 606	RBV 608	RBV 610	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Current T <sub>C</sub> = 55°C	I <sub>F(AV)</sub>	6.0							Amps.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	200							Amps.
Current Squared Time at t < 8.3 ms.	i <sup>2</sup> t	64							A <sup>2</sup> S
Maximum Forward Voltage per Diode at I <sub>F</sub> = 3.0 Amps.	V <sub>F</sub>	1.0							Volts
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C	I <sub>R</sub>	10							μA
	I <sub>R(H)</sub>	200							μA
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	8.0							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	- 40 to + 150							°C
Storage Temperature Range	T <sub>STG</sub>	- 40 to + 150							°C

**Notes :** 1. Thermal Resistance from junction to case with units mounted on a 2.6"x1.4"x0.06" THK (6.5cm.x3.5cm.x0.15cm.) Al. Plate. Heatsink

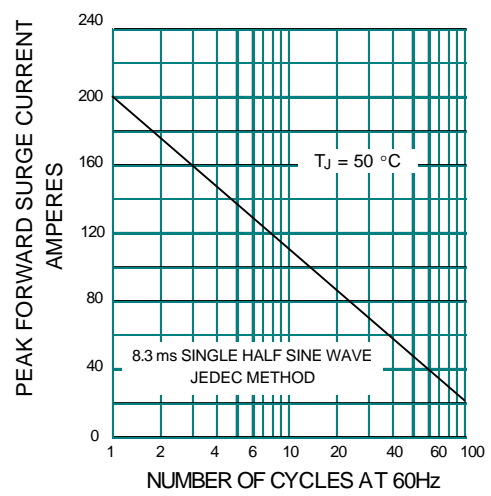
**UPDATE : MARCH 6, 2000**

## RATING AND CHARACTERISTIC CURVES ( RBV600 - RBV610 )

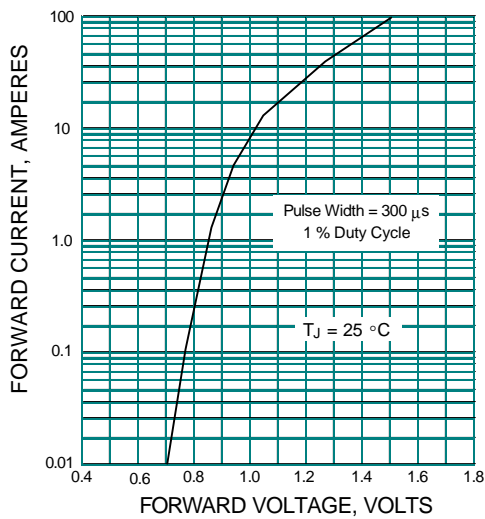
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE**

