

# RBV600 - RBV610

# SILICON BRIDGE RECTIFIERS

**PRV : 50 - 1000 Volts**

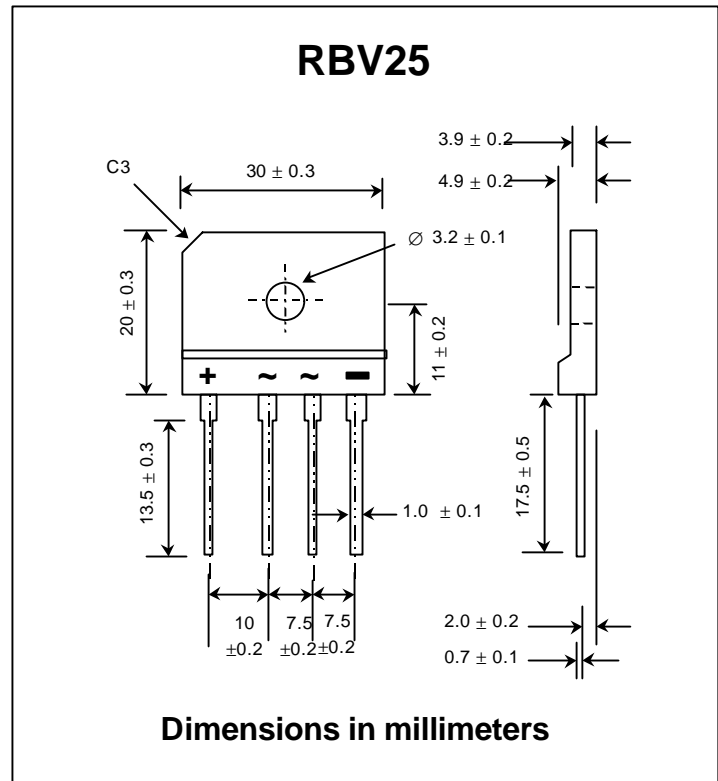
**Io : 6.0 Amperes**

## 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%.

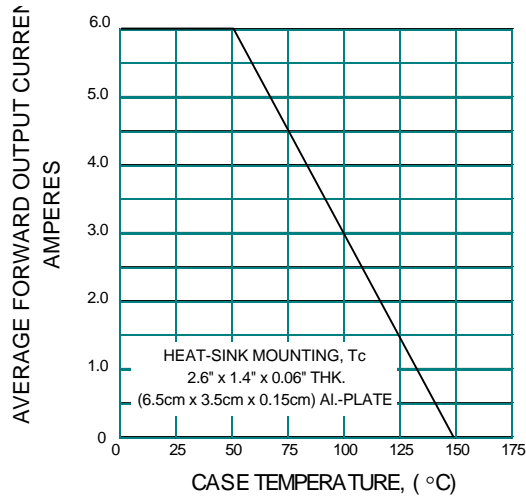
RATING	SYMBOL	RBV 600	RBV 601	RBV 602	RBV 604	RBV 606	RBV 608	RBV 610	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Current $T_c = 55^\circ C$	$I_{F(AV)}$	6.0							Amps.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	200							Amps.
Current Squared Time at $t < 8.3$ ms.	$I^2 t$	64							A <sup>2</sup> S
Maximum Forward Voltage per Diode at $I_F = 3.0$ Amps.	$V_F$	1.0							Volts
Maximum DC Reverse Current $T_a = 25^\circ C$	$I_R$	10							$\mu A$
at Rated DC Blocking Voltage $T_a = 100^\circ C$	$I_{R(H)}$	200							$\mu A$
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	8.0							$^\circ C/W$
Operating Junction Temperature Range	$T_J$	- 40 to + 150							$^\circ C$
Storage Temperature Range	$T_{STG}$	- 40 to + 150							$^\circ C$

**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

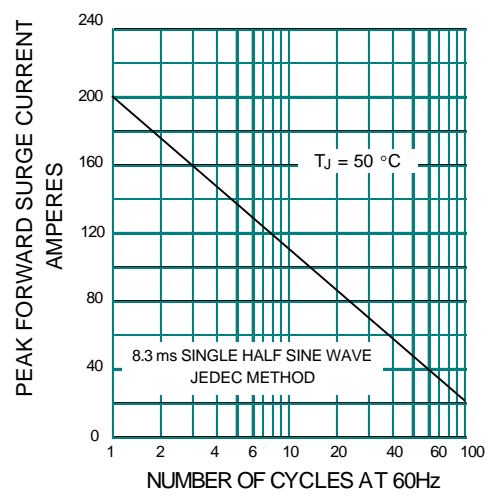
**UPDATE : MARCH 6, 2000**

## RATING AND CHARACTERISTIC CURVES ( RBV600 - RBV610 )

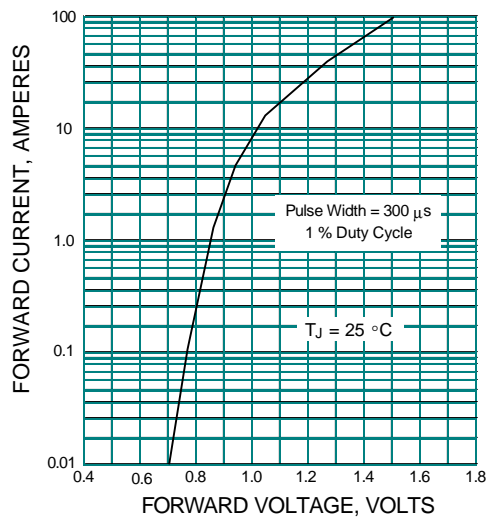
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



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



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

