

# RBV3500 - RBV3510

# SILICON BRIDGE RECTIFIERS

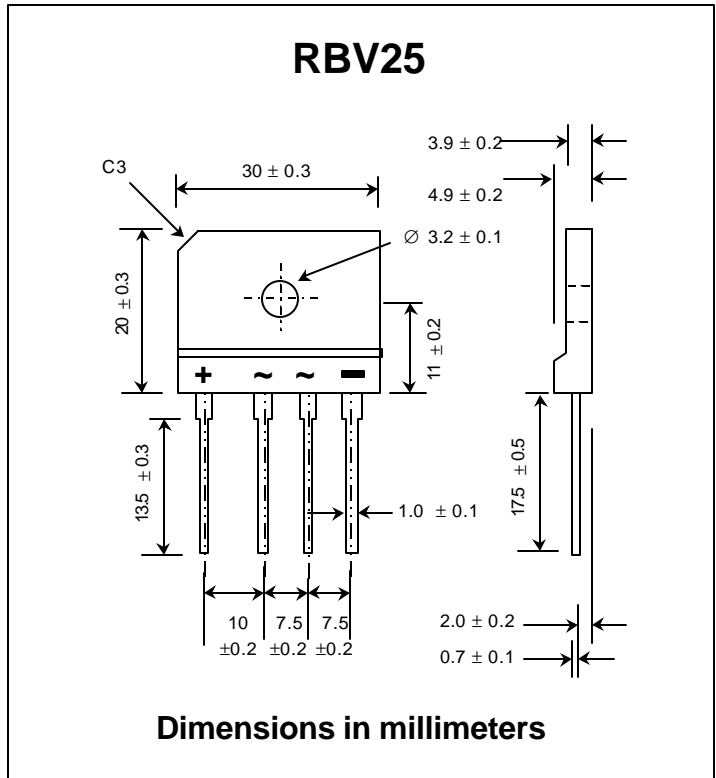
**PRV : 50 - 1000 Volts**  
**Io : 35 Amperes**

### 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 3500	RBV 3501	RBV 3502	RBV 3504	RBV 3506	RBV 3508	RBV 3510	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>	35							Amps.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400							Amps.
Current Squared Time at t < 8.3 ms.	I <sup>2</sup> t	660							A <sup>2</sup> S
Maximum Forward Voltage per Diode at I <sub>F</sub> = 17.5 Amps.	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>a</sub> = 25 °C	I <sub>R</sub>							μA
	T <sub>a</sub> = 100 °C	I <sub>R(H)</sub>							μA
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	1.5							°C/W
Operating Junction Temperature Range	T <sub>J</sub>	10							°C
Storage Temperature Range	T <sub>STG</sub>	- 40 to + 150							°C

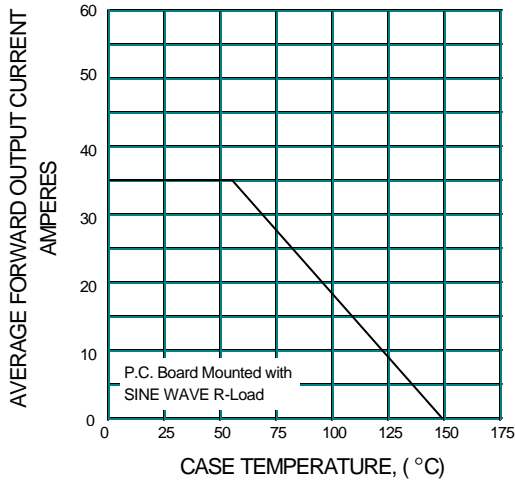
### Notes :

1. Thermal Resistance from junction to case with units mounted on heatsink.

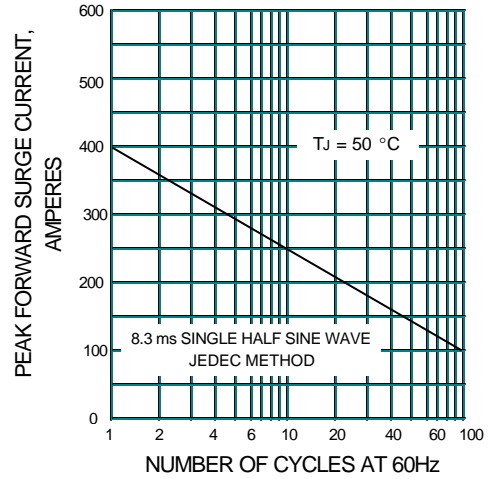
**UPDATE : AUGUST 3, 1998**

## RATING AND CHARACTERISTIC CURVES ( RBV3500 - RBV3510 )

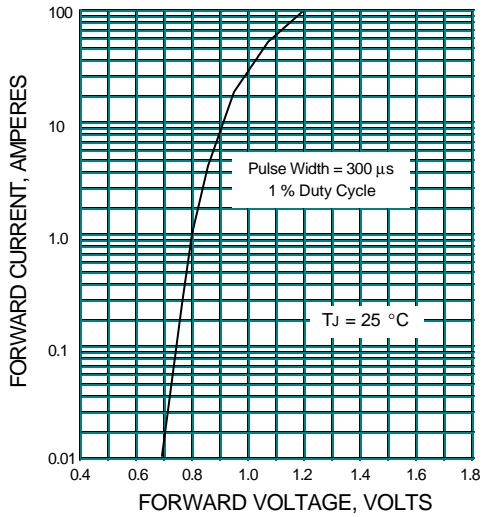
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



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



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

