

# RBV3500 - RBV3510

PRV : 50 - 1000 Volts

Io : 35 Amperes

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Rated isolation-voltage 2000 V<sub>AC</sub>
- \* Ideal for printed circuit board
- \* Very good heat dissipation
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : Reliable low cost construction utilizing molded plastic technique
- \* Epoxy : UL94V-0 rate flame retardant
- \* Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight : 8.17 grams ( Approximaly )

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

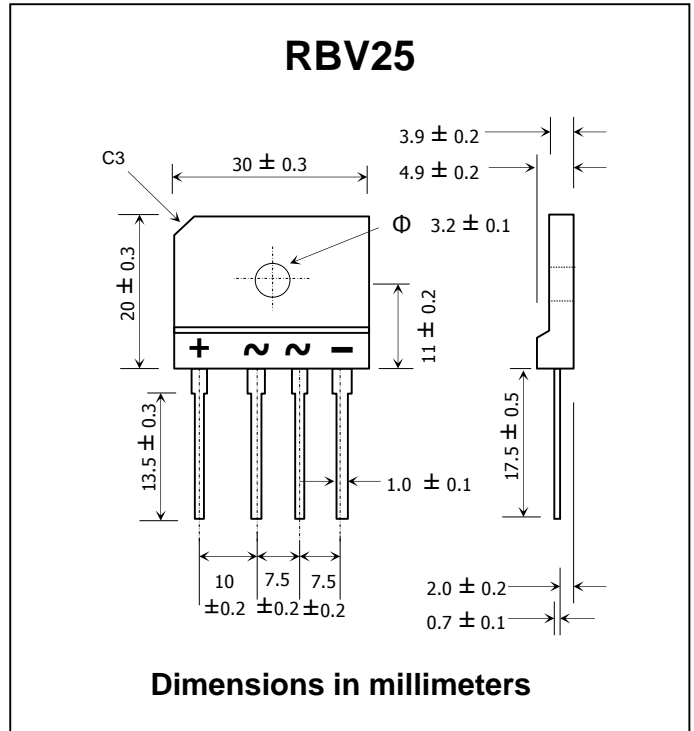
Single phase, half wave, 60 Hz, resistive or inductive load.

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	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Current T <sub>c</sub> = 55°C	I <sub>F(AV)</sub>	35							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400							A
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 A , T <sub>a</sub> = 25 ° C at I <sub>F</sub> = 17.5 A , T <sub>a</sub> = 125 ° C	V <sub>F</sub>	1.1							V
		0.9							
Maximum DC Reverse Current T <sub>a</sub> = 25 ° C at Rated DC Blocking Voltage T <sub>a</sub> = 100 ° C	I <sub>R</sub>	10							μA
	I <sub>R(H)</sub>	200							μA
Mounting Torque (Recommended torque :0.5 N.m)	TOR	0.8							N.m
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	1.5							°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

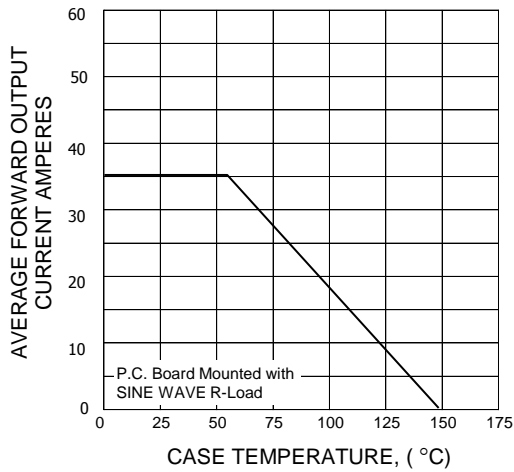
1. Thermal Resistance from junction to case with units mounted on heatsink.

## SILICON BRIDGE RECTIFIERS

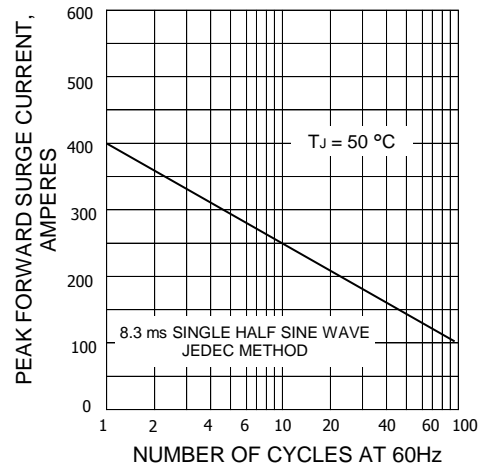


## RATING AND CHARACTERISTIC CURVES ( RBV3500 - RBV3510 )

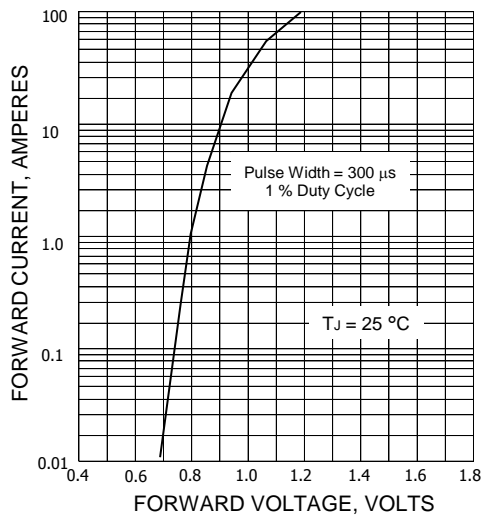
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



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



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

