

# RBV3510S

# SILICON BRIDGE RECTIFIERS

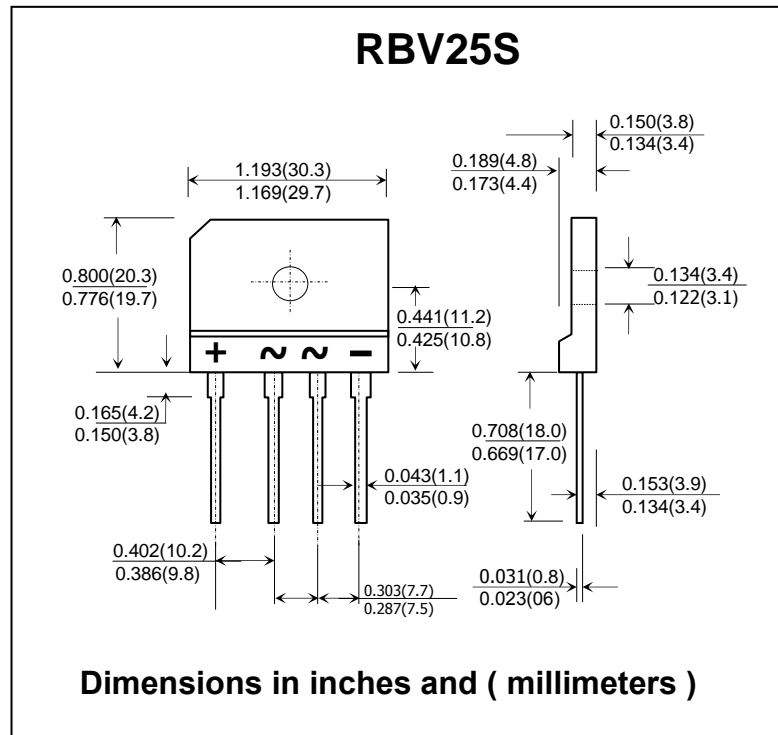
**PRV : 1000 Volts**  
**Io : 35 Amperes**

**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



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

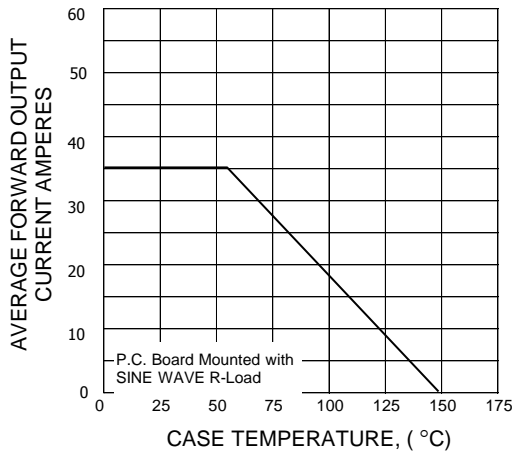
Rating at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

RATING	SYMBOL	RBV3510S	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	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>	320	A
Current Squared Time at 1ms ≤ t < 8.3ms.	I <sup>2</sup> t	424	A <sup>2</sup> S
Maximum Forward Voltage per Diode at I <sub>F</sub> = 17.5 A , T <sub>a</sub> = 25 ° C	V <sub>F</sub>	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	10	μA
Typical Thermal Resistance (Note 1)	RθJC	0.8	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	- 55 to + 150	°C
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 150	°C

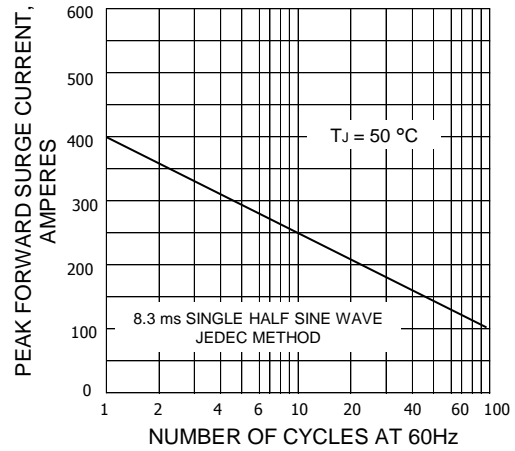
**Note :**  
 1. Thermal Resistance from junction to case with units mounted on heatsink.

### RATING AND CHARACTERISTIC CURVES ( RBV3510S )

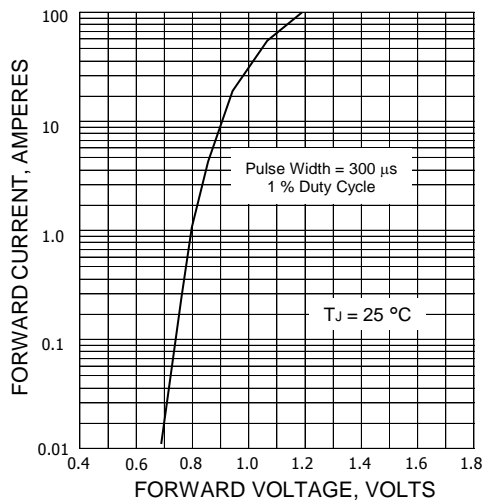
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



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



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

