

# RBV600D - RBV610D

# SILICON BRIDGE RECTIFIERS

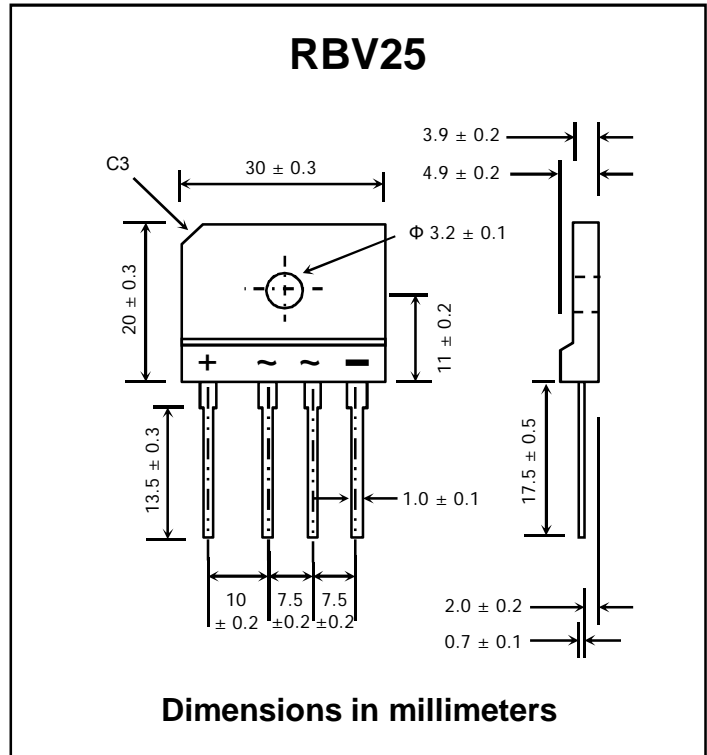
**PRV : 50 - 1000 Volts**  
**Io : 6.0 Amperes**

### 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
- \* **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 : 7.80 grams ( Approximaly )



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

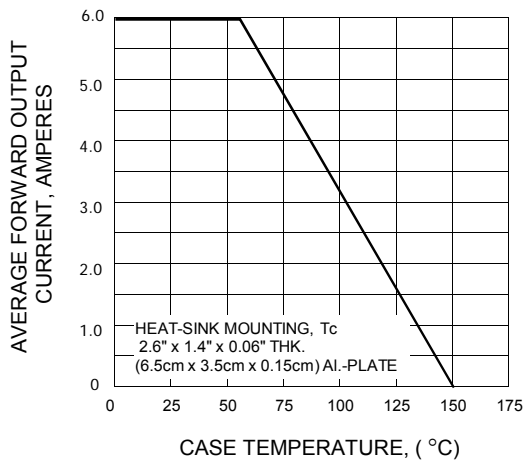
Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

RATING	SYMBOL	RBV 600D	RBV 601D	RBV 602D	RBV 604D	RBV 606D	RBV 608D	RBV 610D	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>	6.0								A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	300								A
Current Squared Time at t < 8.3 ms.	I <sup>2</sup> t	127								A <sup>2</sup> s
Maximum Forward Voltage per Diode at I <sub>F</sub> = 6.0 A	V <sub>F</sub>	1.0								V
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>	2.2								°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

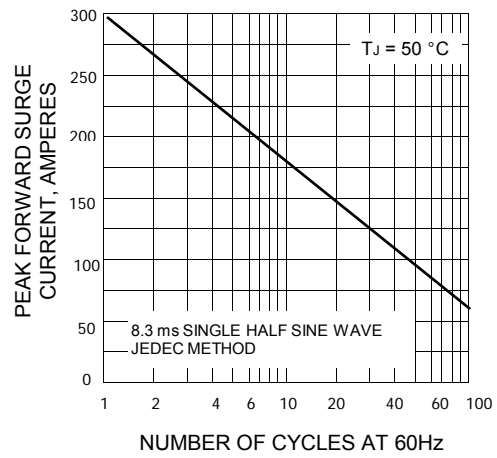
**Note** : 1. Thermal Resistance from junction to case with units mounted on a 2.6"x1.4"x0.06" THK (6.5cm.x3.5cm.x0.15cm.) Al. Plate. Heatsink.

## RATING AND CHARACTERISTIC CURVES ( RBV600D - RBV610D )

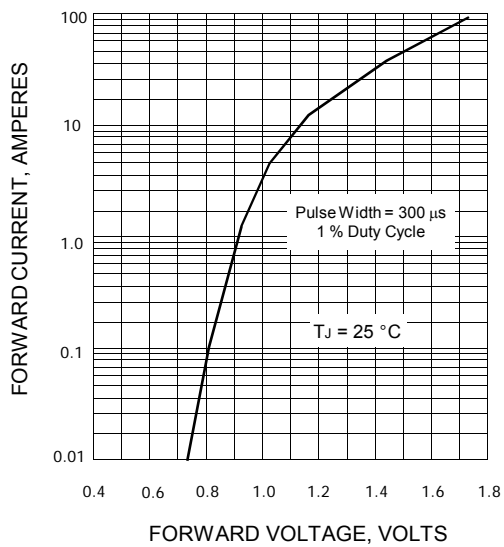
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



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



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

