New Jersey Semi-Conductor Products, Inc.

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# **RBV5000 - RBV5010**

## **PRV : 50 - 1000 Volts** lo: 50 Amperes

### **FEATURES:**

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

### **MECHANICAL DATA:**

- utilizing molded plastic technique
- \* Epoxy : UL94V-0 rate flame retardant
- Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING	SYMBOL	RBV 5000	RBV 5001	RBV 5002	RBV 5004	RBV 5006	RBV 5008	RBV 5010	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Current Tc = 55°C	F(AV)	50							Α
Peak Forward Surge Current Single half sine wave	100							A	
Superimposed on rated load (JEDEC Method)	IFSM	+00							
Current Squared Time at t < 8.3 ms.	l <sup>2</sup> t	660							A <sup>2</sup> S
Maximum Forward Voltage per Diode at IF = 25 A	VF	1.1							V
Maximum DC Reverse Current Ta = 25 °C	IR	10							μA
at Rated DC Blocking Voltage Ta = 100 °C	IR(H)	200							μA
Typical Thermal Resistance (Note 1)	R0JC	1.5							°C/W
Operating Junction Temperature Range	τJ	- 40 to + 150						°C	
Storage Temperature Range	Тѕтс	- 40 to + 150							°C

Note :

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

# Case : Reliable low cost construction

- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Any
- \* Weight: 8.17 grams (Approximaly)

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

**Quality Semi-Conductors** 



SILICON BRIDGE RECTIFIERS

**Dimensions in millimeters** 



## RATING AND CHARACTERISTIC CURVES (RBV5000 - RBV5010)