

RBV5000R - RBV5010R

SILICON BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts

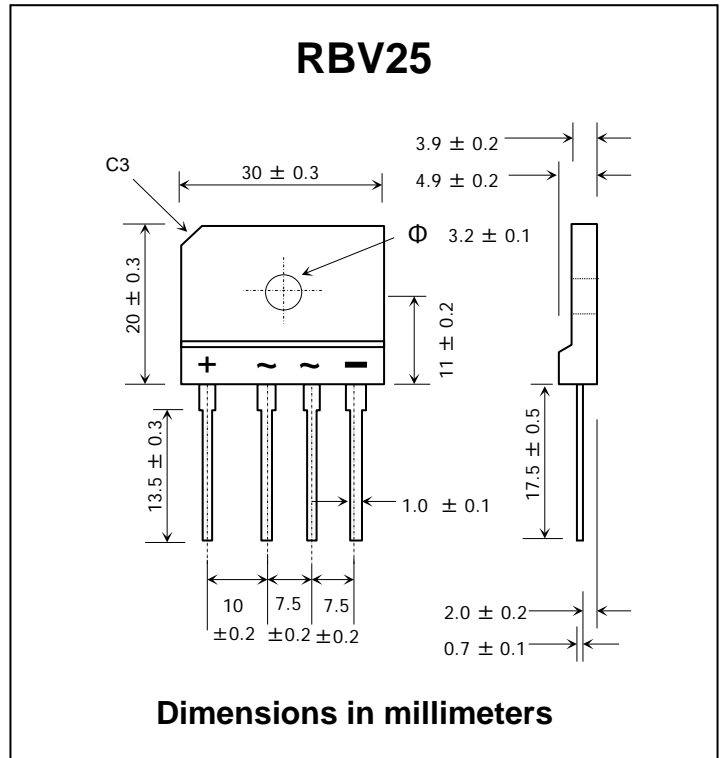
Io : 50 Amperes

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Rated isolation-voltage 2000 V_{AC}
- * 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 (Approximally)



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 5000R	RBV 5001R	RBV 5002R	RBV 5004R	RBV 5006R	RBV 5008R	RBV 5010R	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Current T _c = 55°C	I _{F(AV)}	50							Amps.
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}	400							Amps.
Current Squared Time at t < 8.3 ms.	I ² t	660							A ² S
Maximum Forward Voltage per Diode at I _F = 25 Amps.	V _F	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _a = 25 °C	10							μA
	T _a = 100 °C	200							μA
Typical Thermal Resistance (Note 1)	R _{θJC}	1.5							°C/W
Operating Junction Temperature Range	T _J	10							°C
Storage Temperature Range	T _{STG}	- 40 to + 150							°C

Notes :

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

RATING AND CHARACTERISTIC CURVES (RBV5000R - RBV5010R)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

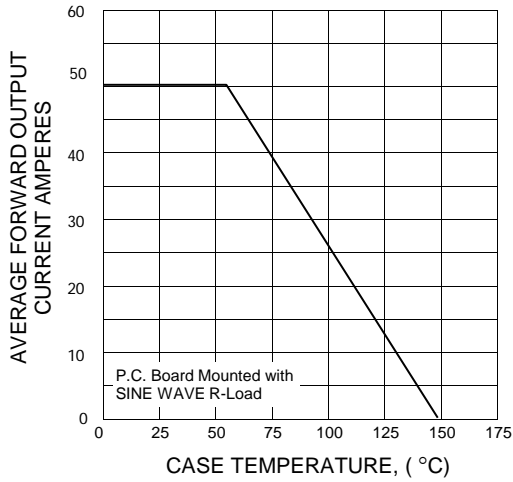


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

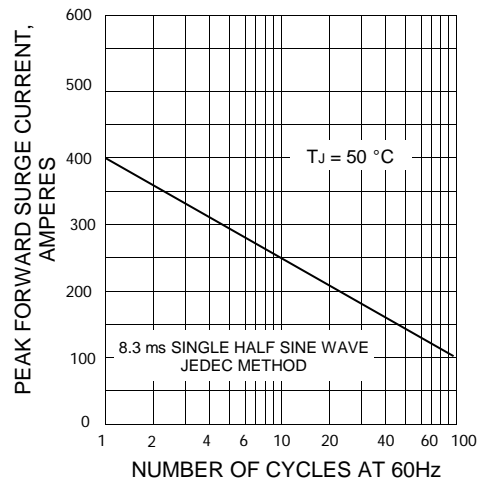


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

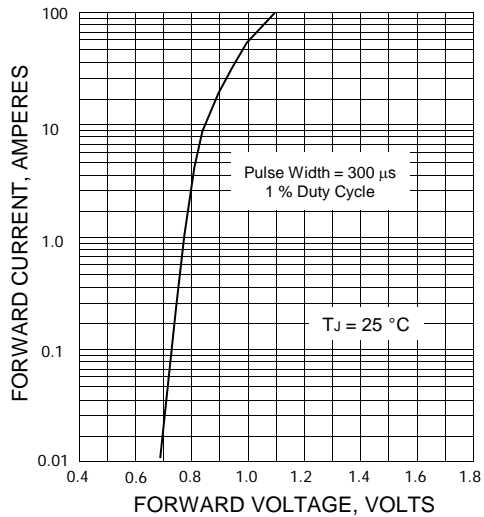


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

