



THE DATASHEET OF RBV5010



RBV5000 - RBV5010

PRV : 50 - 1000 Volts

Io : 50 Amperes

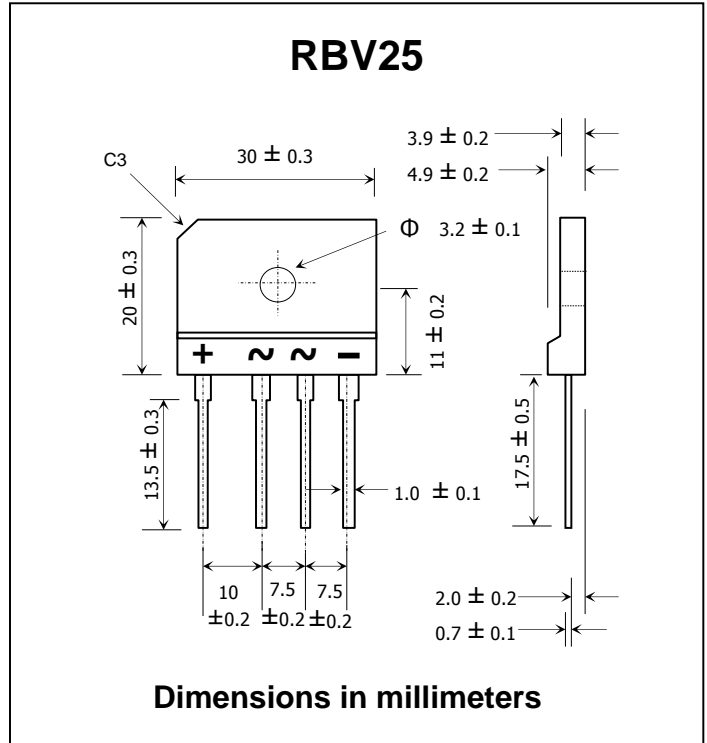
FEATURES :

- * 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
- * Moisture Sensitivity Level 1 (Unlimited)
- * 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)

SILICON BRIDGE RECTIFIERS



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 5000	RBV 5001	RBV 5002	RBV 5004	RBV 5006	RBV 5008	RBV 5010	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current T _c = 55°C	I _{F(AV)}	50							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I _{FSM}	400							A
Current Squared Time at t < 8.3 ms.	I ² t	660							A ² S
Maximum Forward Voltage per Diode at I _F = 25 A	V _F	1.1							V
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
Mounting Torque (Recommended torque :0.5 N.m)	TOR	0.8							N.m
Operating Junction Temperature Range	T _J	- 40 to + 150							°C
Storage Temperature Range	T _{STG}	- 40 to + 150							°C

Note :

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

RATING AND CHARACTERISTIC CURVES (RBV5000 - RBV5010)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

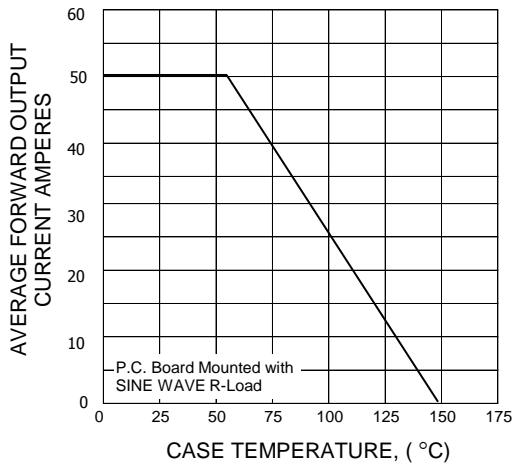


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

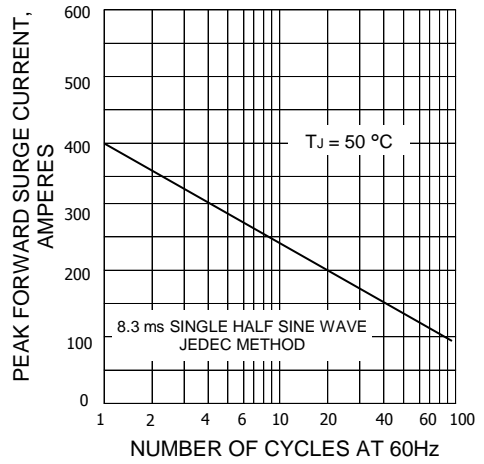


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

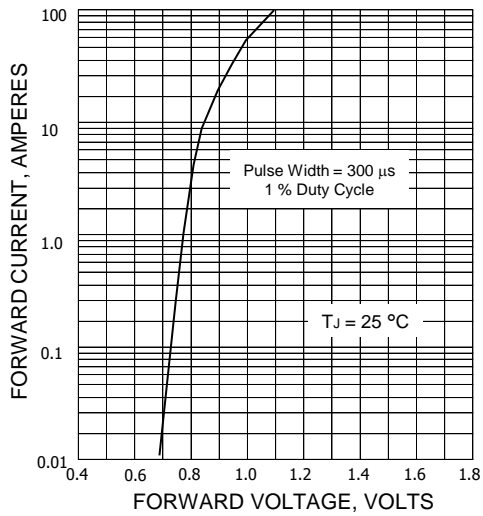
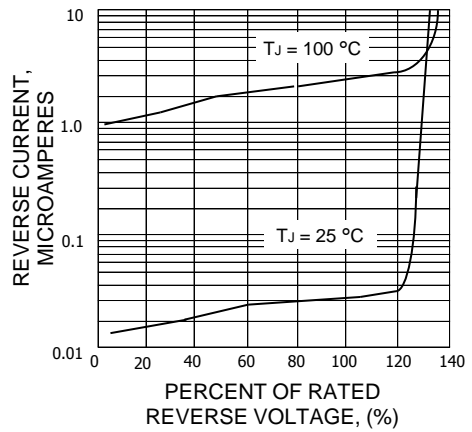




FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE









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