RBV3500 - RBV3510

SILICON BRIDGE RECTIFIERS

PRV : 50 - 1000 Volts
Io : 35 Amperes

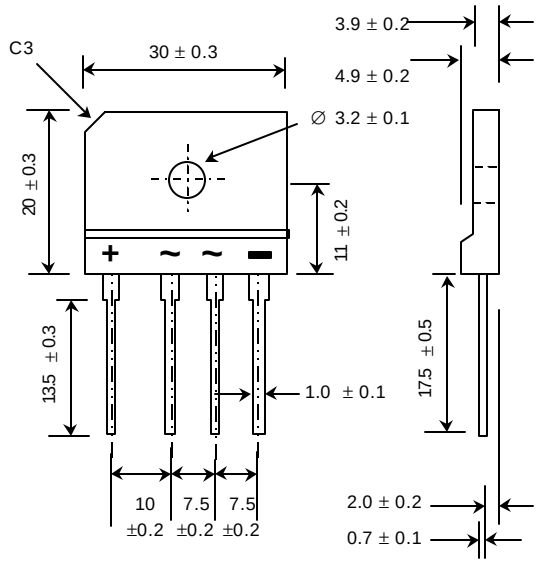
FEATURES :

* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* High case dielectric strength of 2000 V_{DC}
* Ideal for printed circuit board
* Very good heat dissipation

MECHANICAL DATA :

* Case : Reliable low cost construction utilizing molded plastic technique
* Epoxy : UL94V-O rate flame retardant
* Terminals : Plated lead solderable per MIL-STD-202, Method 208 guaranteed
* Polarity : Polarity symbols marked on case
* Mounting position : Any
* Weight : 7.7 grams

RBV25



Dimensions in millimeters

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 3500	RBV 3501	RBV 3502	RBV 3504	RBV 3506	RBV 3508	RBV 3510	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 Tc = 55°C	$I_{F(AV)}$	35							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^2t	660							A^2S
Maximum Forward Voltage per Diode at IF = 17.5 Amps.	V_F	1.1							Volts
Maximum DC Reverse Current Ta = 25 °C	I_R	10							µA
at Rated DC Blocking Voltage Ta = 100 °C	$I_{R(H)}$	200							µA
Typical Thermal Resistance (Note 1)	RθJC	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.

UPDATE : AUGUST 3, 1998

RATING AND CHARACTERISTIC CURVES (RBV3500 - RBV3510)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

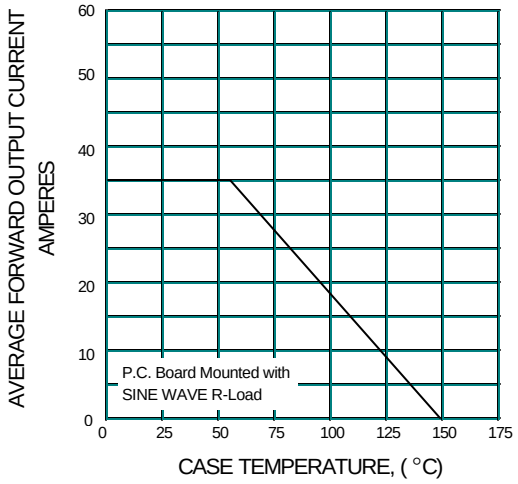


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

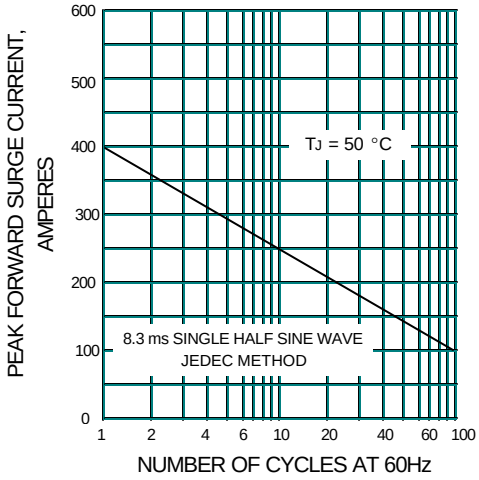


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

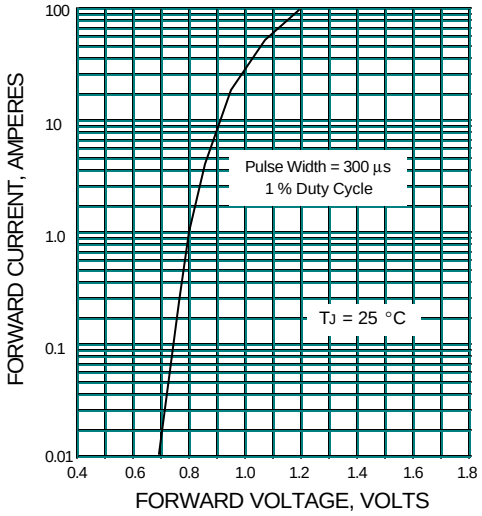


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE