RBV600D - RBV610D

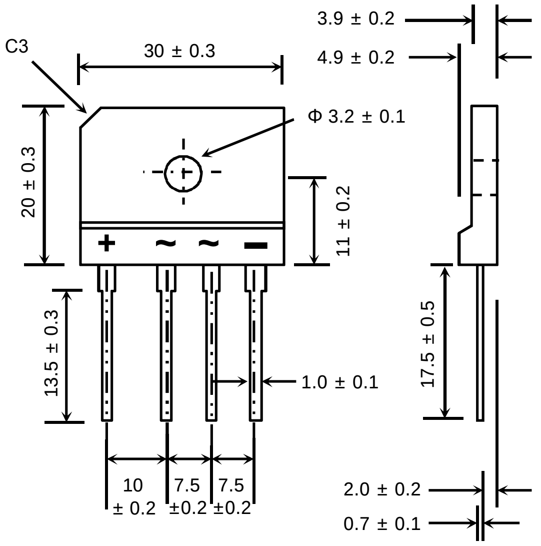
SILICON BRIDGE RECTIFIERS

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
- Rated isolation-voltage 2000 V_{AC}
- Ideal for printed circuit board
- Very good heat dissipation
- Pb / RoHS Free

RBV25



Dimensions in millimeters

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_{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 Tc = 55°C	$I_{F(AV)}$	6.0							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	300							A
Current Squared Time at t < 8.3 ms.	I^2t	373							A^2s
Maximum Forward Voltage per Diode at I_F = 6.0 A	V_F	1.0							V
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)	$R_{\theta JC}$	2.2							°C/W
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 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

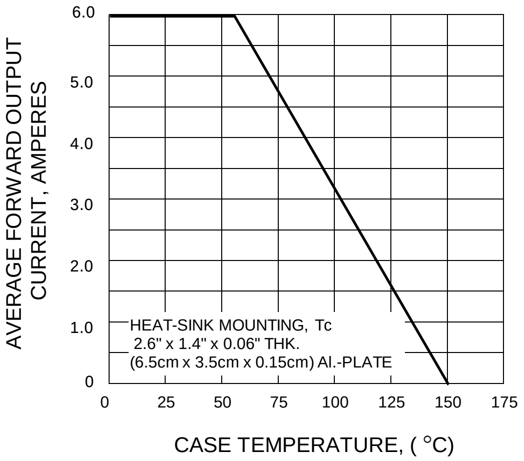


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

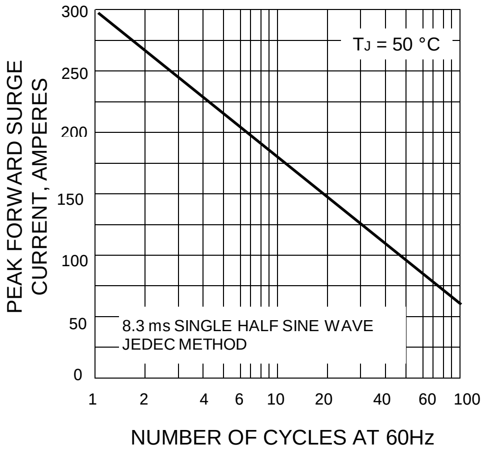


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

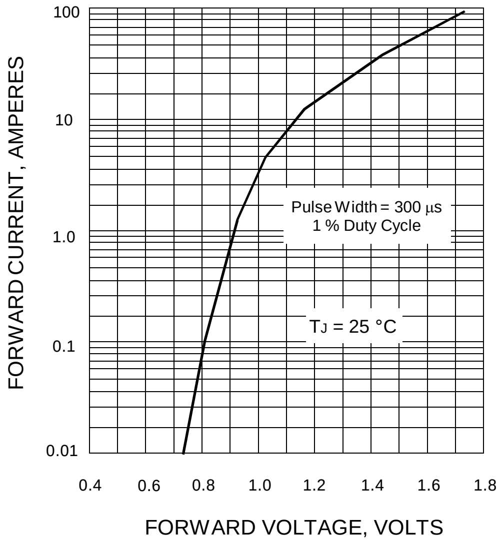


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE