

## D25XB20 ~ D25XB60

## SILICON BRIDGE RECTIFIERS

**PRV : 200 - 600 Volts**

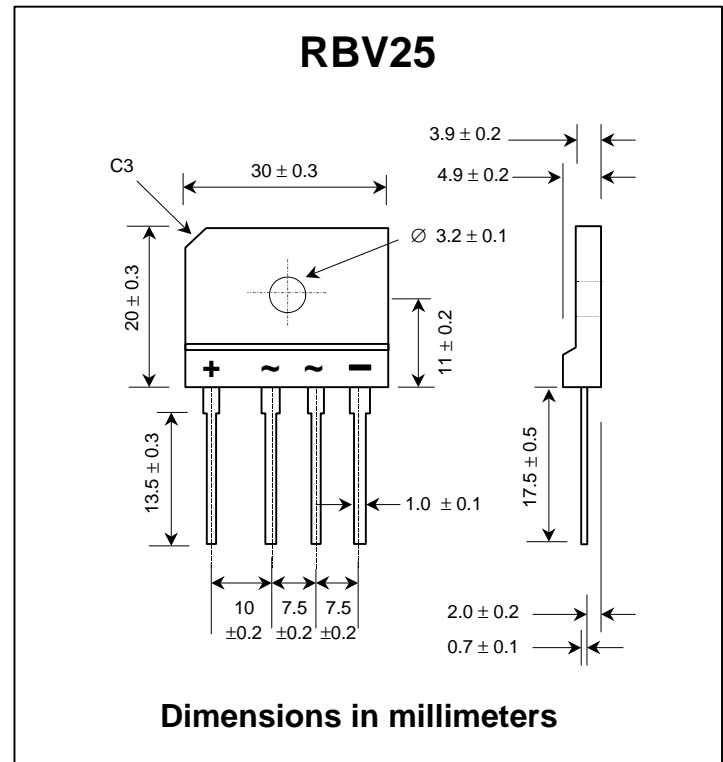
**Io : 25 Amperes**

### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* 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-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



### 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%.

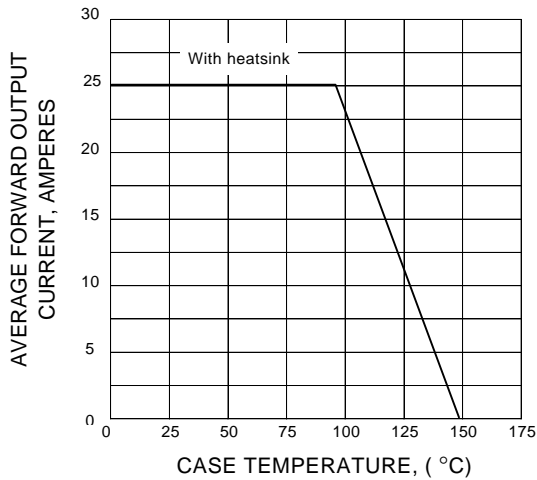
RATING	SYMBOL	D25XB20	D25XB60	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	600	V
Maximum RMS Voltage	$V_{RMS}$	140	420	V
Maximum DC Blocking Voltage	$V_{DC}$	200	600	V
Maximum Average Forward Current 50 Hz sine wave, R-load	$I_{F(AV)}$	25 (With heatsink, $T_c = 98^\circ\text{C}$ ) 3.5 (Without heatsink, $T_a = 25^\circ\text{C}$ )		A
Peak Forward Surge Current, 50Hz sine wave Non-repetitive 1 cycle peak value, $T_j = 25^\circ\text{C}$	$I_{FSM}$	350		A
Current Squared Time at $t < 8.3$ ms.	$I^2t$	300		$\text{A}^2\text{S}$
Maximum Forward Voltage per Diode at $I_F = 12.5$ A	$V_F$	1.05		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10		$\mu\text{A}$
	$I_{R(H)}$	200		$\mu\text{A}$
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	1.0		$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	- 40 to + 150		$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 40 to + 150		$^\circ\text{C}$

#### Note :

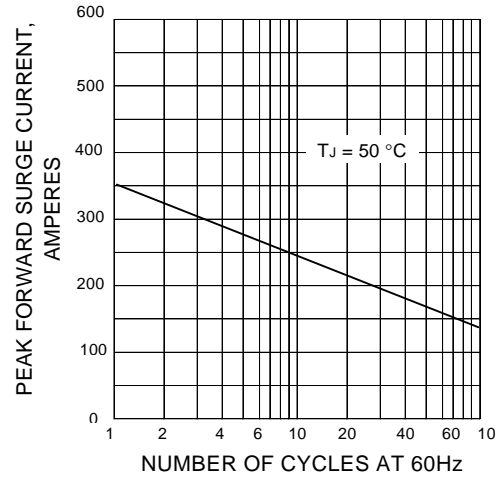
1. Thermal resistance from junction to case, With heat sink.

## RATING AND CHARACTERISTIC CURVES ( D25XB20 ~ D25XB60 )

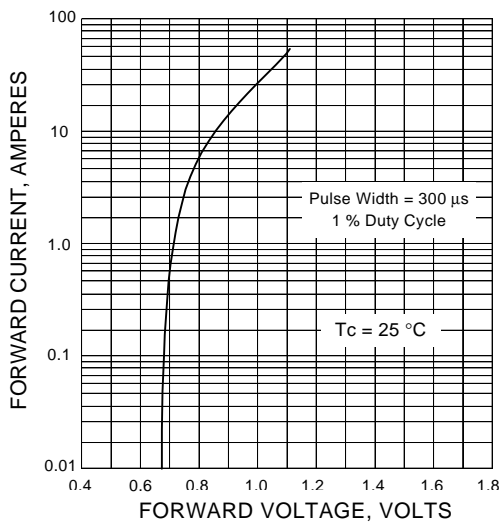
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE**

