

**Kingtronics**®**S50VB005 THRU  
S50VB100****SINGLE-PHASE GLASS PASSIVATED BRIDGE RECTIFIERS****REVERSE VOLTAGE 50 to 1000 Volts****FORWARD CURRENT 50 Ampere****FEATURES**

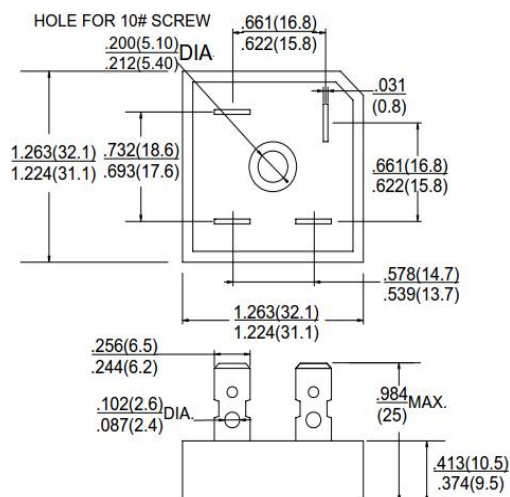
- Rating to 1000V PRV
- High efficiency
- Glass passivated chip junction
- Electrically isolated metal case for maximum heat Dissipation
- The plastic material has UL flammability classification 94V-0
- Electrically isolated base-2500 Vlots

**MECHANICAL DATA**

- Case : Molded plastic with Heatsink internally mounted in the bridge encapsulation
- Polarity : As marked on Body
- Mounting : Hole for # 10 screw
- Weight : 0.70 ounces , 20 grams (terminal)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

**Ratings at 25°C ambient temperature unless otherwise specified ,  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load derate current by 20%**

**Dimensions in inches and (millimeters)**

PARAMETER	SYMBOL	S50VB 005	S50VB 10	S50VB 20	S50VB 40	S50VB 60	S50VB 80	S50VB 100	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RRM}$	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 Rectified Current @ $T_c=T_a$	$I_{(AV)}$	50.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load	$I_{FSM}$	450							A
Maximum Forward Voltage at 17.5A DC	$V_F$	1.1							V
Maximum DC Reverse Current @ $T_J=25^\circ C$ at rated DC blocking voltage @ $T_J=125^\circ C$	$I_R$	5.0 500							$\mu A$
$I^2t$ Rating for Fusing( $t<8.3ms$ ), (Note 1)	$I^2t$	800							$A^2S$
Typical Junction Capacitance per element (Note 2)	$C_J$	150							pF
Typical Thermal Resistance	$R_{\theta JC}$	1.4							$^\circ C/W$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ C$

1-Measured at non-repetitive, for greater than 1ms and less than 8.3ms

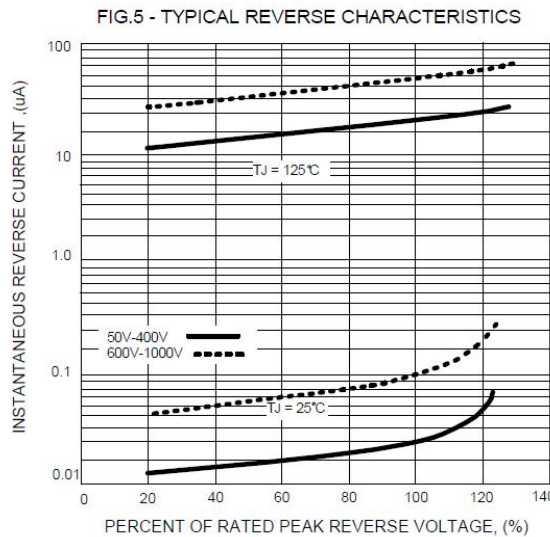
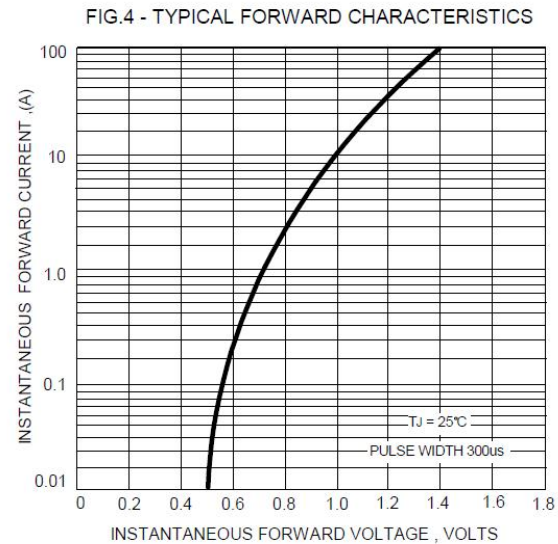
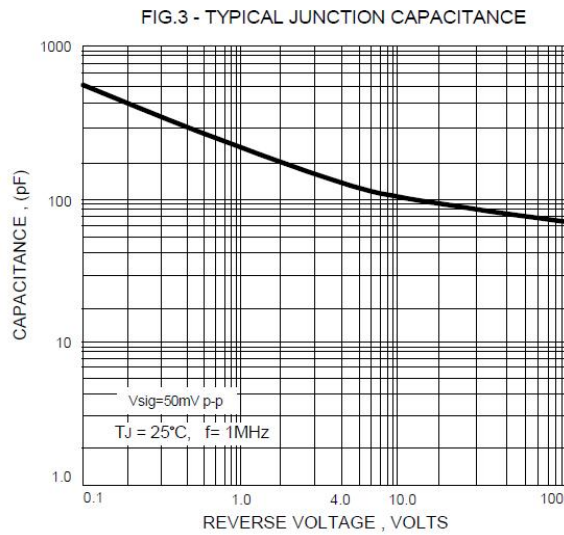
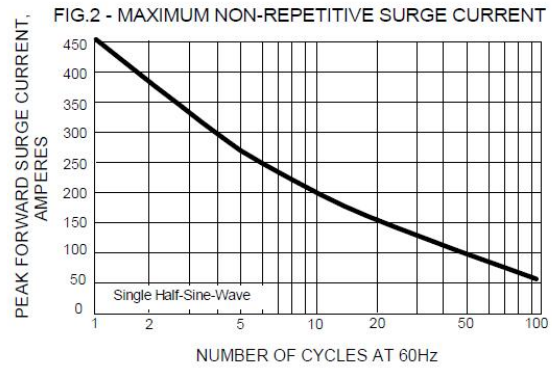
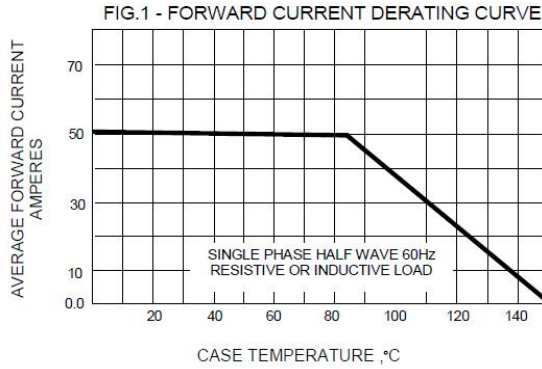
2- Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

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# S50VB005 THRU S50VB100

## RATINGS AND CHARACTERISTIC CURVES



Note: Specifications are subject to change without notice.

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