Kingtronics®

S50VB005 THRU S50VB100

SINGLE-PHASE BRIDGE RECTIFIER GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 50 Ampere

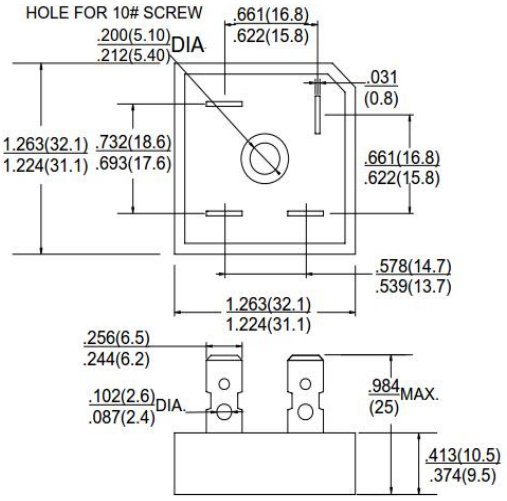
FEATURES

- 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)

S35



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

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 @Tc=Ta	$I_{(AV)}$	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℃ atrated DC blocking voltage @ T_J=125℃	I_R	5.0 500							uA
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							℃/W
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

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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RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

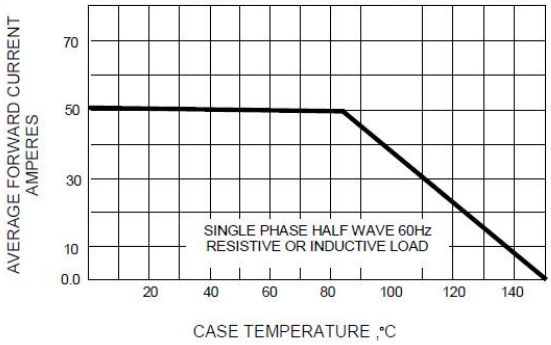


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

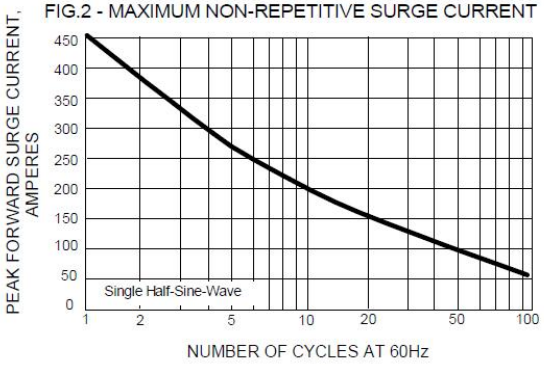


FIG.3 - TYPICAL JUNCTION CAPACITANCE

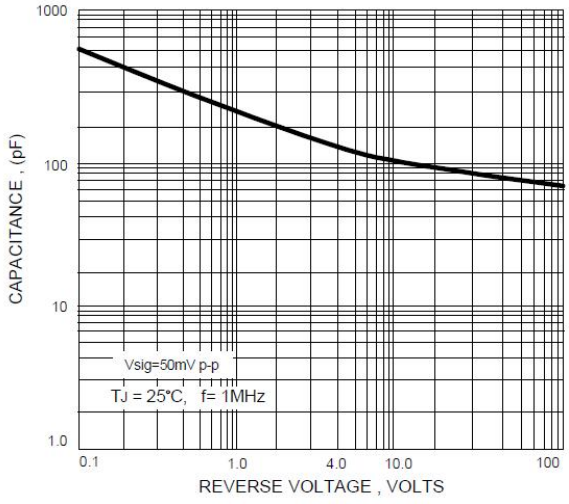


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

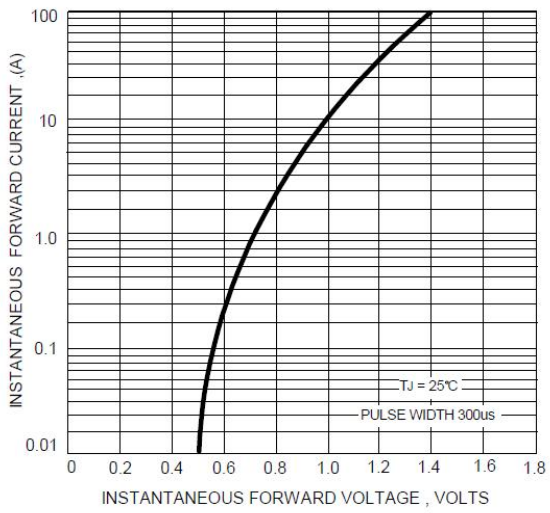
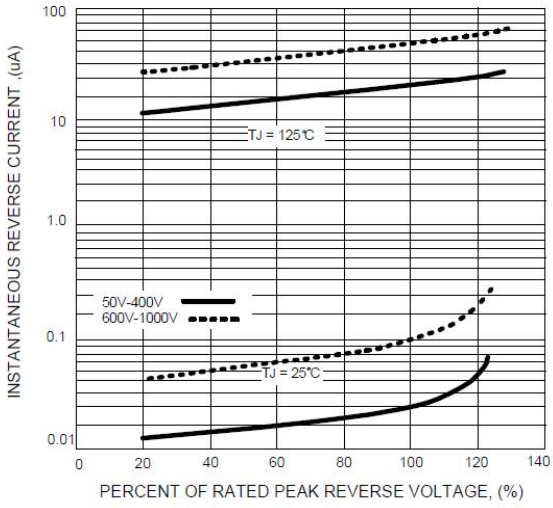


FIG.5 - TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice.