

## S50VB005 THRU S50VB100

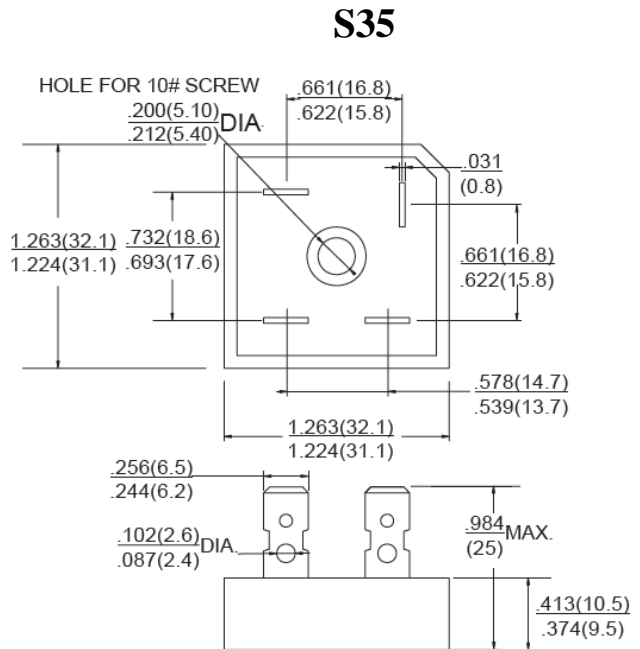
SINGLE-PHASE BRIDGE RECTIFIER GLASS PASSIVATED BRIDGE RECTIFIERS  
 REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 50 Ampere

### 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 Volts

### 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)



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C 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 <sub>RRM</sub>	50	100	200	400	600	800	1000	v
Maximum RMS Voltage	V <sub>RRM</sub>	35	70	140	280	420	560	700	v
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	v
Maximum Average Forward Rectified Current @T <sub>c</sub> =T <sub>a</sub>	I <sub>(AV)</sub>	50.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load	I <sub>FSM</sub>	450							A
Maximum Forward Voltage at 25.0A DC	V <sub>F</sub>	1.1							v
Maximum DC Reverse Current @ T <sub>J</sub> =25°C at rated DC blocking voltage @ T <sub>J</sub> =125°C	I <sub>R</sub>	5.0 500							μA
I <sup>2</sup> t Rating for Fusing(t<8.3ms), (Note 1)	I <sup>2</sup> t	800							A <sup>2</sup> S
Typical Junction Capacitance per element (Note 2)	C <sub>J</sub>	150							pF
Typical Thermal Resistance	R <sub>θJC</sub>	1.4							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°C

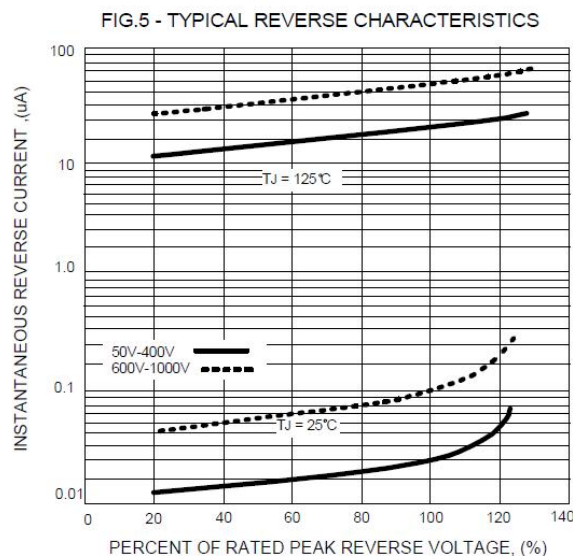
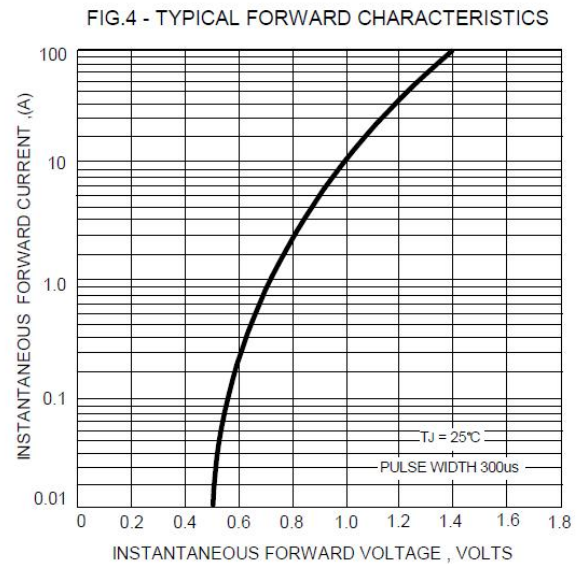
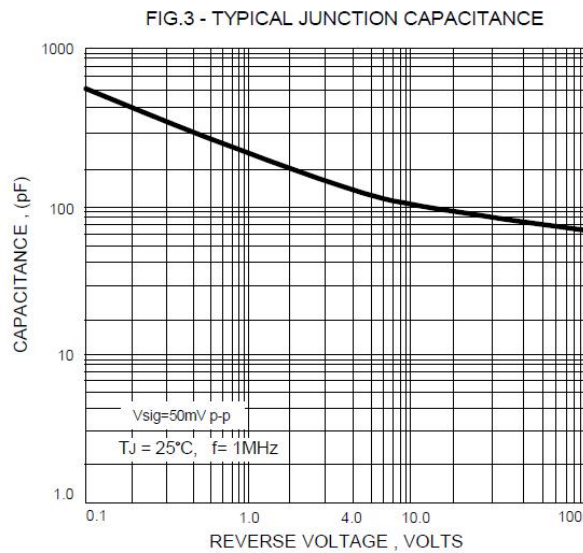
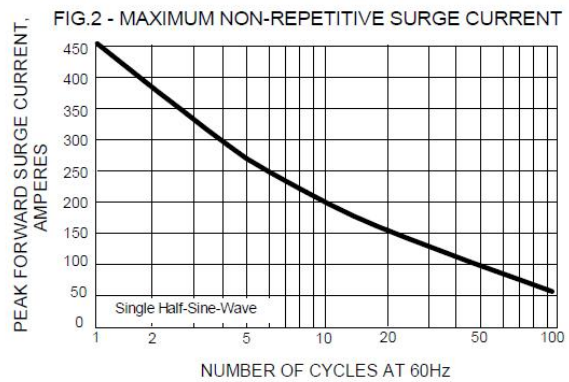
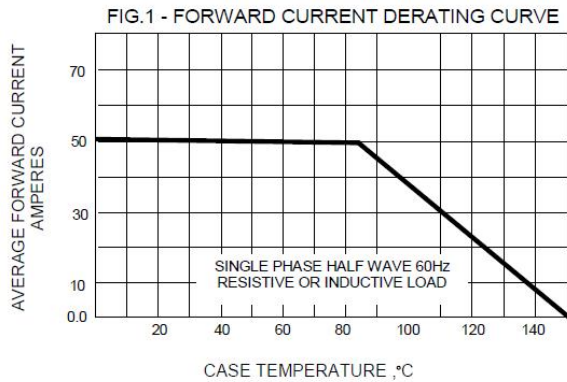
Note: 1. Measured at non-repetitive, for greater than 1ms and less than 8.3ms

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

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## RATING AND CHARACTERISTIC CURVES S50VB005 THRU S50VB100



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.