



S50VB005 THRU S50VB100
SINGLE-PHASE BRIDGE RECTIFIER
GLASS PASSIVATED BRIDGE RECTIFIERS

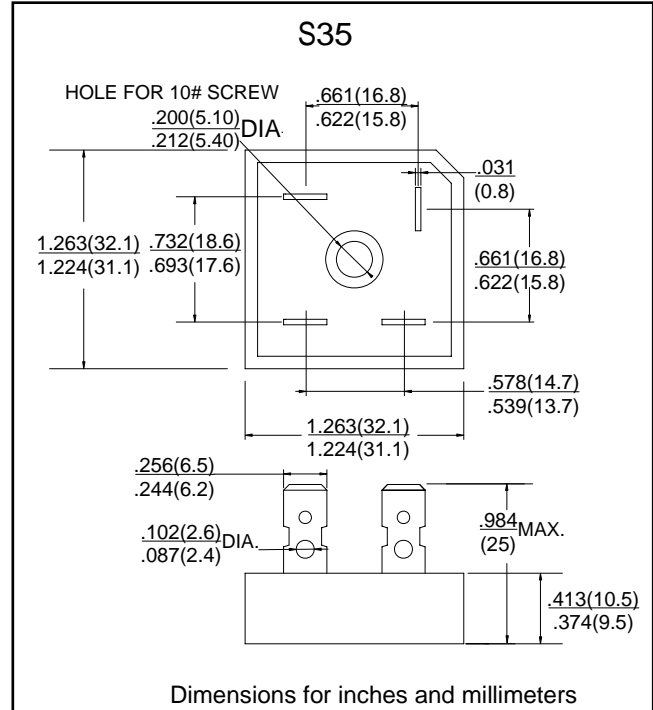
REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT 50 Amperes

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)



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%

CHARACTERISTICS	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 _{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 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 25.0A DC	V _F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _J = 25°C @T _J = 125°C	I _R	5.0 500							uA
I ² t Rating for fusing (t < 8.3ms), (Note 1)	I ² t	800							A ² S
Typical Junction Capacitance per element (Note 2)	C _J	150							pF
Typical Thermal Resistance	R _{θJC}	1.0							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

NOTES : 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.

RATINGS AND CHARACTERISTIC CURVES S50VB005 THRU S50VB100

FIG.1 - FORWARD CURRENT DERATING CURVE

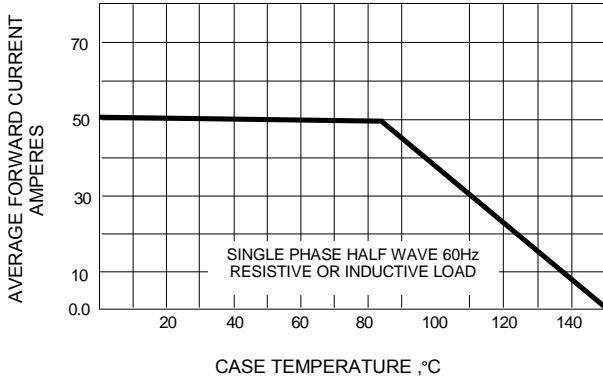


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

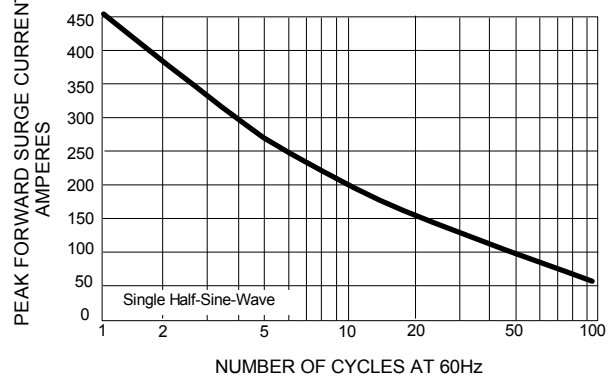


FIG.3 - TYPICAL JUNCTION CAPACITANCE

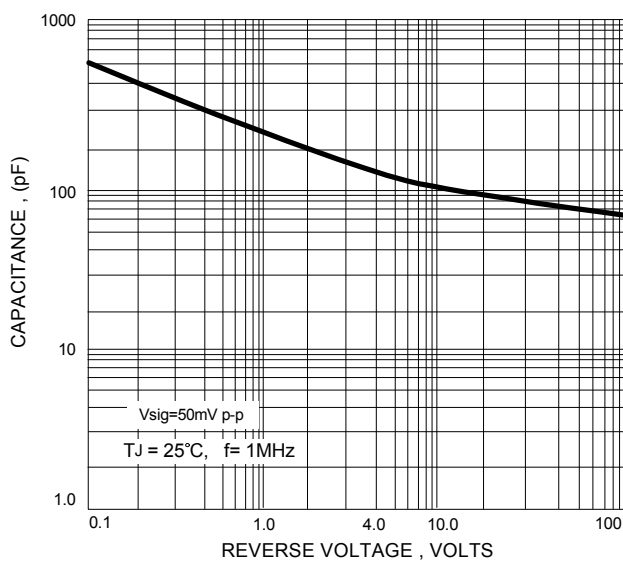


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

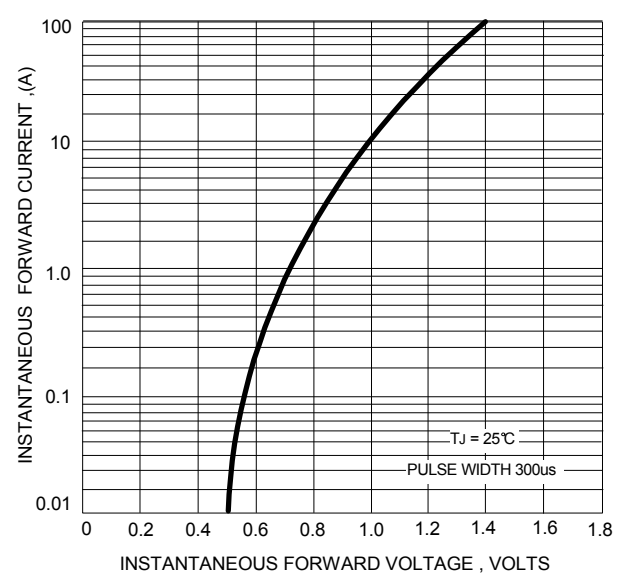


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

