



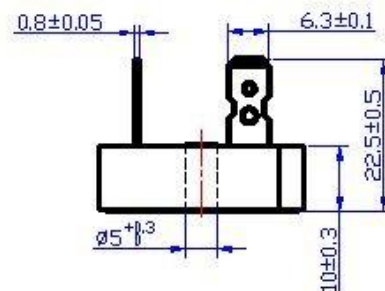
## S25VB10 THRU S25VB100

VOLTAGE RANGE 100to 1000 Volts  
CURRENT 25 Ampere



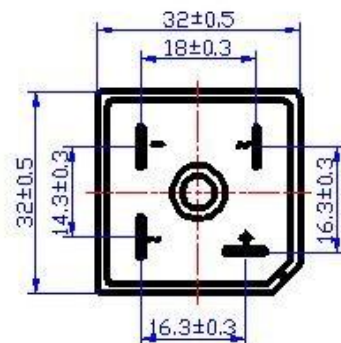
## Features

- 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: 0.47 ounces, 13.4 grams (wire)



## 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%

TYPE NUMBER	SYMBOL	S25 VB10	S25 VB20	S25 VB40	S25 VB60	S25 VB80	S25 VB100	UNIT
Maximum Reverse Peak Repetitive Voltage	$V_{RRM}$	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current, at $T_C = T_A$	$I_{(AV)}$	12.5						Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load	$I_{FSM}$	400						Amps
Rating for Fusing ( $t < 8.3ms$ ) (Note1)	$I^2t$	800						A <sup>2</sup> s
Maximum Instantaneous Forward Voltage drop Per Bridge element 12.5A	$V_F$	1.1						Volts
Maximum Reverse Current at rated DC blocking voltage per element	$I_R$	5.0						μAmps
		500						
Mounting Torque (Recommended torque:0.5 N.m)	$T_{OR}$	2.0						N.m
Typical Thermal Resistance (NOTE 2)	$R_{θJC}$	0.9						°C/W
Dielectric Strength (NOTE 3)	$V_{DIS}$	2.5						kVolts
Operating Temperature Range	$T_J$	150						°C
Storage Temperature Range	$T_{STG}$	-40 to +150						°C

## Notes:

1. Measured at non-repetitive, for greater than 1ms and less than 8.3ms.
2. Device mounted on 300mm×300mm×1.6mm Cu Plate Heatsink.
3. 50Hz, R.M.S, t=1min, Iiso:1mA(max)



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## Ratings and Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1-FORWARD CURRENT DERATING CURVE

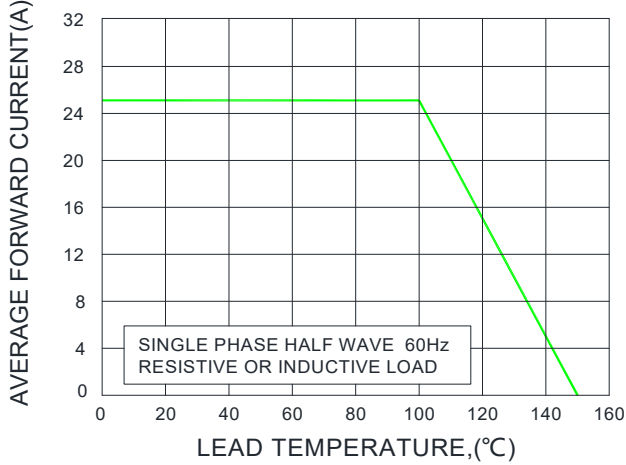


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

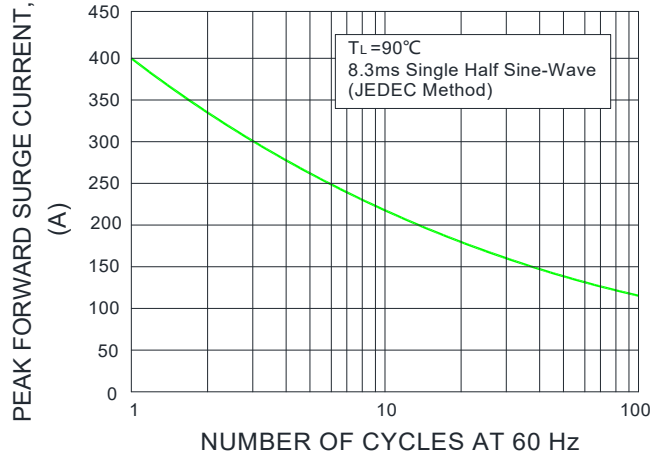


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

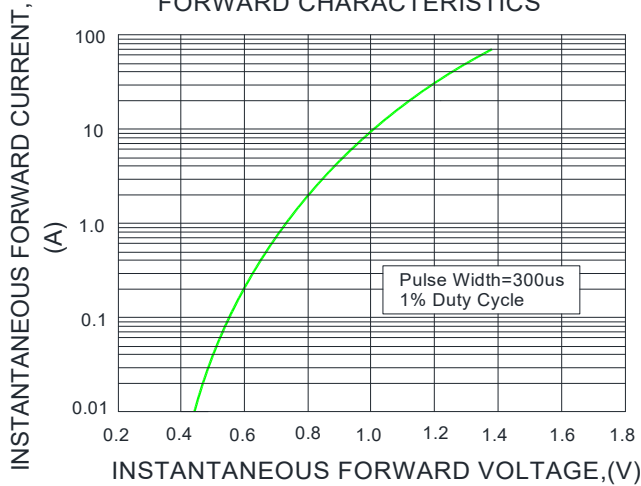


FIG.4-TYPICAL REVERSE CHARACTERISTICS

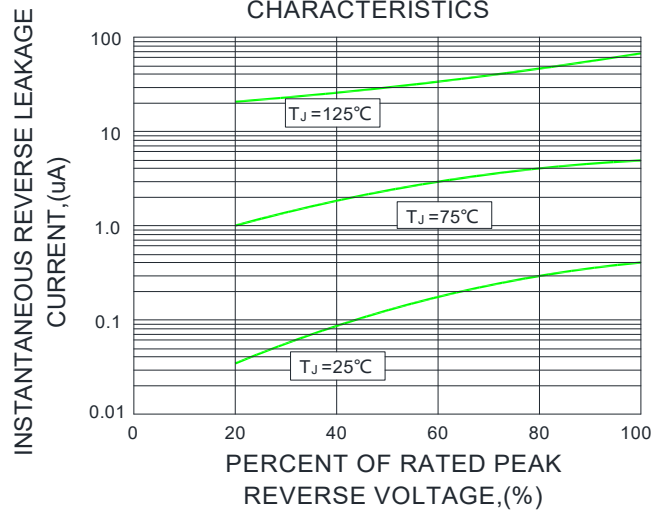
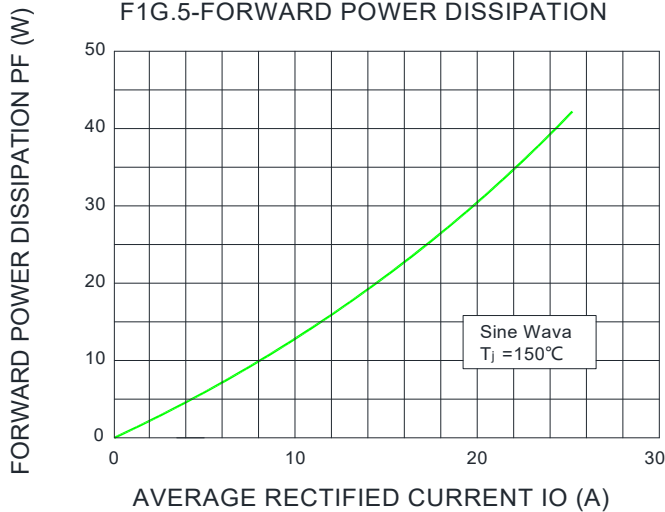


FIG.5-FORWARD POWER DISSIPATION





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<b>CURRENT</b>	<b>25 Ampere</b>

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