

# D5SB10-D5SB100

## SINGLE PHASE GLASSPASSIVATED SIP BRIDGE RECTIFIER

VOLTAGE RANGE: 100 - 1000V CURRENT: 6 A

#### **Features**

- Glass passivated chip junctions
- Plastic Package has Underwriters
- Laboratory Flammability Classification 94V-0
- High current capacity with small package
- Superior thermal conductivity

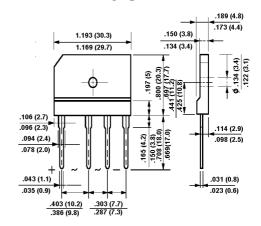
### **Mechanical Data**

- Terminal: Plated leads solderable per MIL-STD 202E, method 208C
- Case: UL-94 Class V-O recognized flame retardant epoxy
- Polarity: Polarity symbol marked on body
- Mounting position: Any





#### D5-SB



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic			Symbol	D5SB10	D5SB20	D5SB40	D5SB60	D5SB80	D5SB100	Unit
Maximum repetitive voltage			$V_{RM}$	100	200	400	600	800	1000	V
Maximum DC reverse current at $@T_A=25^{\circ}C$ rated DC blocking voltage $@T_A=125^{\circ}C$			I <sub>R</sub>	10 500						μА
•	verage rectified forward @T <sub>C</sub> =100°C urrent 60Hz Sine wave esistance load @T <sub>A</sub> =25°C		Io	6 <sup>(1)</sup> 2.8 <sup>(2)</sup>						Α
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load			I <sub>FSM</sub>	150						Α
Maximum Instantaneous Forward Voltage @ 3.0A			V <sub>F</sub>	1.1						V
Dielectric strength terminals to case, AC 1 minute Current 1mA			Vdia	2.5						KV
Maximum thermal Resistance per leg	on P.C.B without heat-sink		$R_{\theta JA}$	22 <sup>(2)</sup>						°C / W
	on AI plate heat-sink		$R_{ heta JC}$	3.4 <sup>(1)</sup>						
Operating and Storage Temperature Range			$T_J$ , $T_{STG}$	150 , -40 ~ 150						°C
Mounting torque			Tor	Rating Torque: 0.8N.m						N.m

Notes: (1) Unit case mounted on AI plate heat-sink

- (2) Unites mounted on P.C.B. without heat-sink
- (3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw {heat-sink size : 10.5 \* 8.2 \* 0.3cm}



Fig. 1 derating Curve

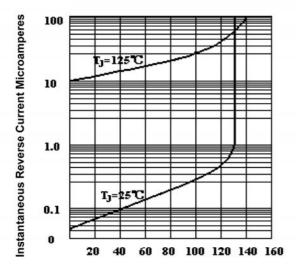
On Al Plate
Heat-sink Mounting

On P.C.B. Without
Heat-sink Mounting

On P.C.B. Without
Heat-sink Mounting

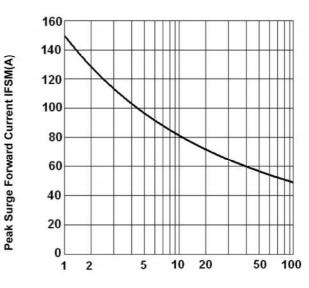
Case Temperature Tc( °C)

Fig.2 Typical Reverse Characteristics



Percent of Rated Peak Reverse Voltage%

Fig.3 Peak Surge Forward capability



Number of Cycles at 60 Hz(cycles)

Fig.4 Forward Voltage

