



**SLDB051S  
THRU  
SLDB057S**

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 0.5 Ampere

**FEATURES**

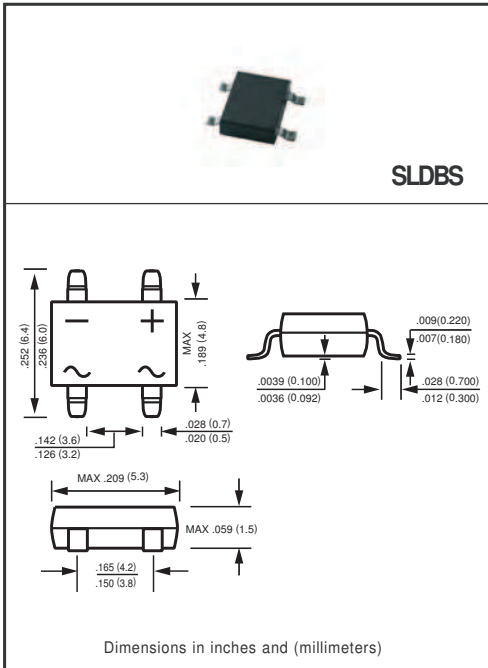
- \* Good for automation insertion
- \* Surge overload rating - 15 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* Weight: 0.33 gram

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-0

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.



MAXIMUM RATINGS (At T<sub>A</sub> = 25°C unless otherwise noted)

RATINGS	SYMBOL	SLDB051S	SLDB052S	SLDB053S	SLDB054S	SLDB055S	SLDB056S	SLDB057S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T <sub>A</sub> = 40°C	I <sub>O</sub>	0.5							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	15							Amps
Typical Current Squared Time	I <sup>2</sup> t	0.9							A <sup>2</sup> /S
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	70							°C/W
	R <sub>θJL</sub>	30							
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS (At T<sub>A</sub> = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	SLDB051S	SLDB052S	SLDB053S	SLDB054S	SLDB055S	SLDB056S	SLDB057S	UNITS	
Maximum Forward Voltage Drop per Bridge Element at 0.5A DC	V <sub>F</sub>	1.1							Volts	
Maximum Reverse Current at Rated DC Blocking Voltage per element	I <sub>R</sub>	@T <sub>A</sub> = 25°C	2.0							uAmps
		@T <sub>A</sub> = 125°C	0.5							mAmps

Note: 1. "Fully ROHS compliant", "100% Sn plating(Pb-free).  
2. Thermal Resistance: Mounted on PCB.  
3. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

# RATING AND CHARACTERISTICS CURVES ( SLDB051S THRU SLDB057S )

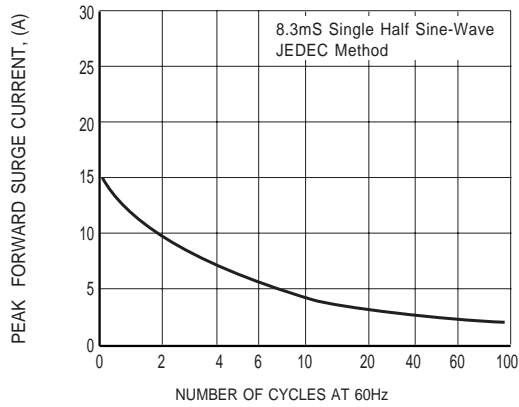


FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

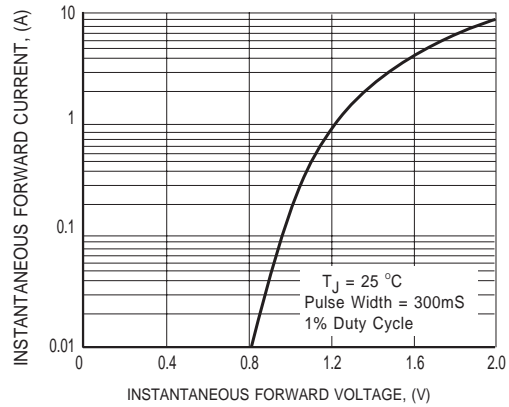


FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

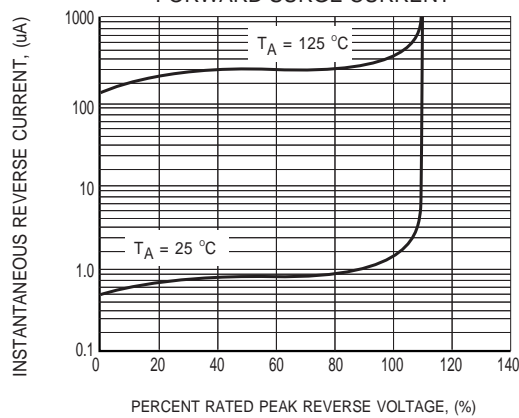


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

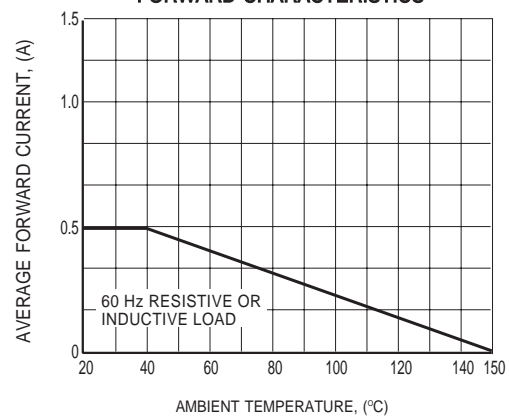
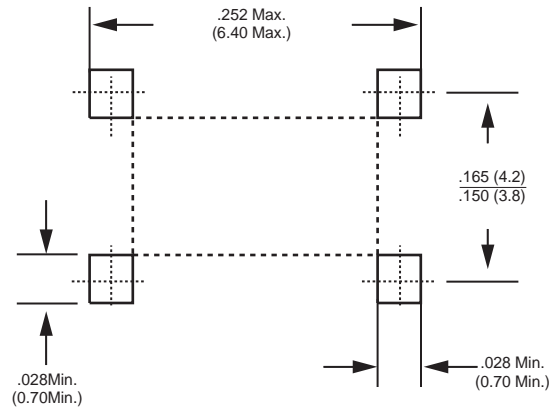


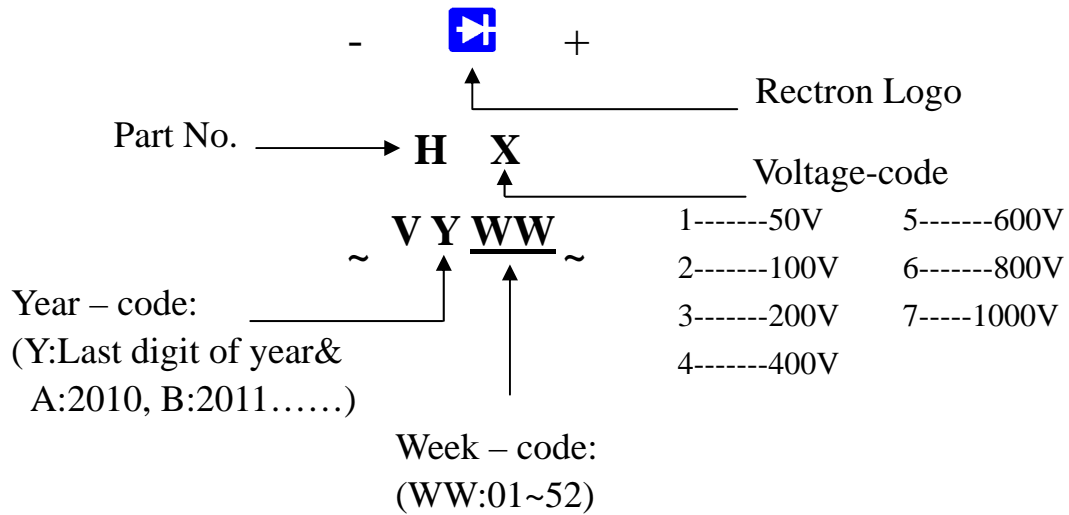
FIG. 4 TYPICAL FORWARD CURRENT DERATING CURVE

## Mounting Pad Layout



Dimensions in inches and (millimeters)

## Marking Description



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