



**SLDB051S
THRU
SLDB057S**

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

FEATURES

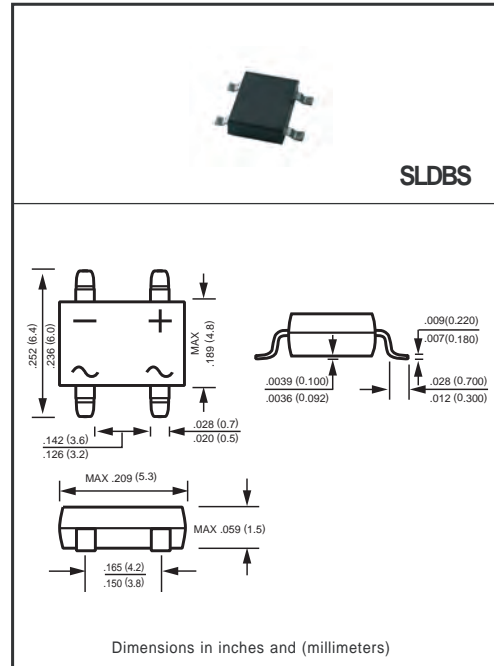
- * Good for automation insertion
- * Surge overload rating - 15 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 0.33 gram

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 $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	SLDB051S	SLDB052S	SLDB053S	SLDB054S	SLDB055S	SLDB056S	SLDB057S	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at $T_A = 40^\circ\text{C}$	I_O	0.5							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	15							Amps
Typical Current Squared Time	I^2t	0.9							A^2/S
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	70							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	30							
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ 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_F	1.1							Volts	
Maximum Reverse Current at Rated DC Blocking Voltage per element	I_R	@ $T_A = 25^\circ\text{C}$	2.0							μAmps
		@ $T_A = 125^\circ\text{C}$	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.

2010-5
REV:B

RATING AND CHARACTERISTICS CURVES (SLDB051S THRU SLDB057S)

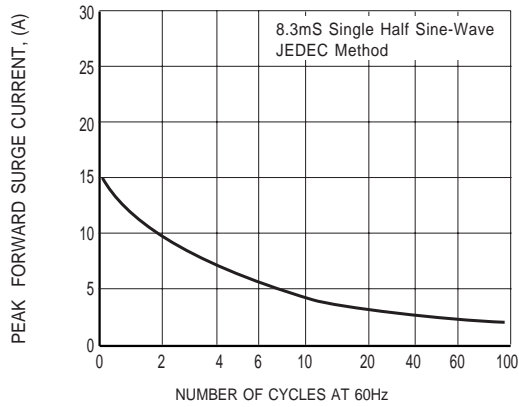


FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

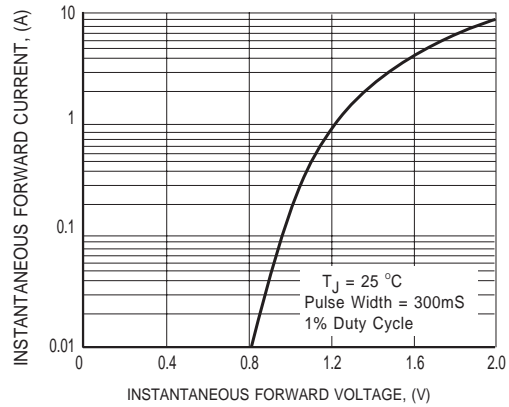


FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

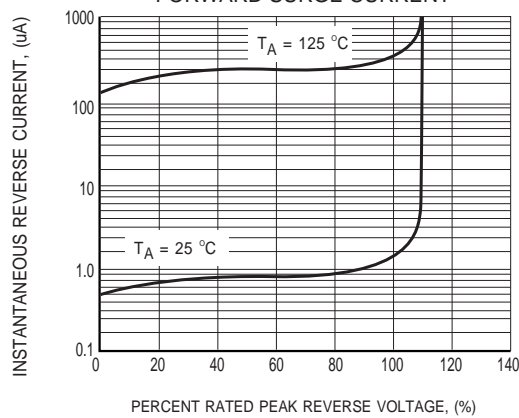


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

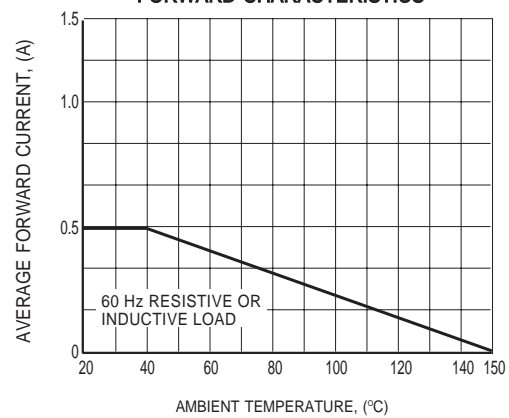
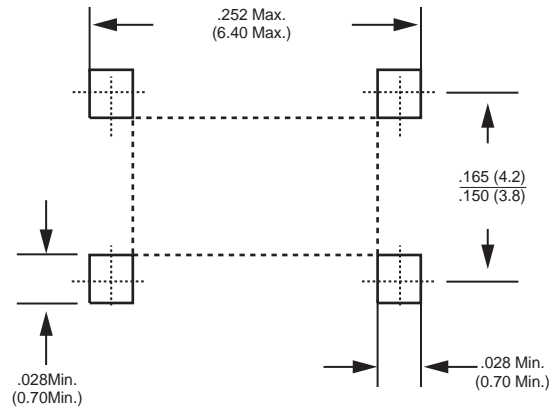


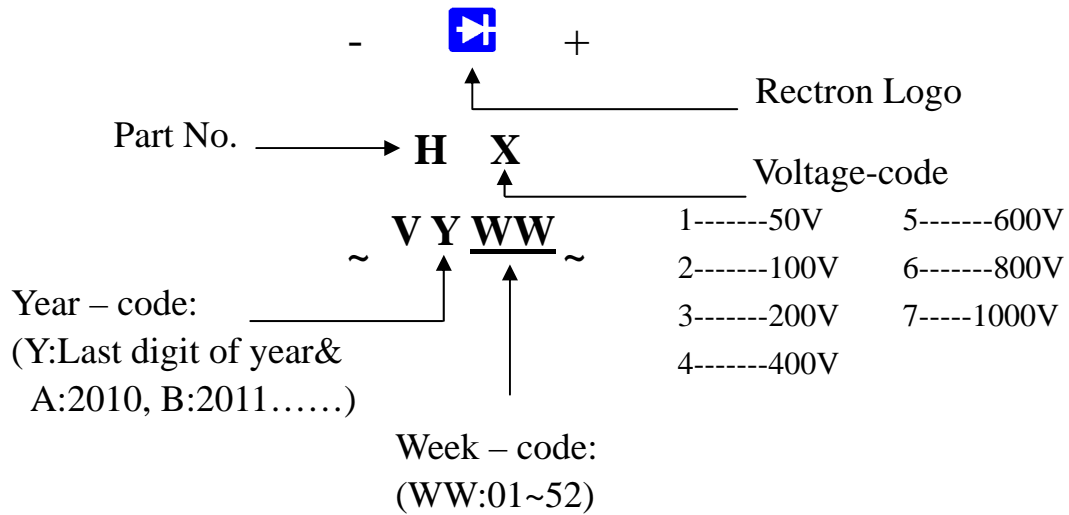
FIG. 4 TYPICAL FORWARD CURRENT DERATING CURVE

Mounting Pad Layout



Dimensions in inches and (millimeters)

Marking Description



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