

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

**FEATURES**

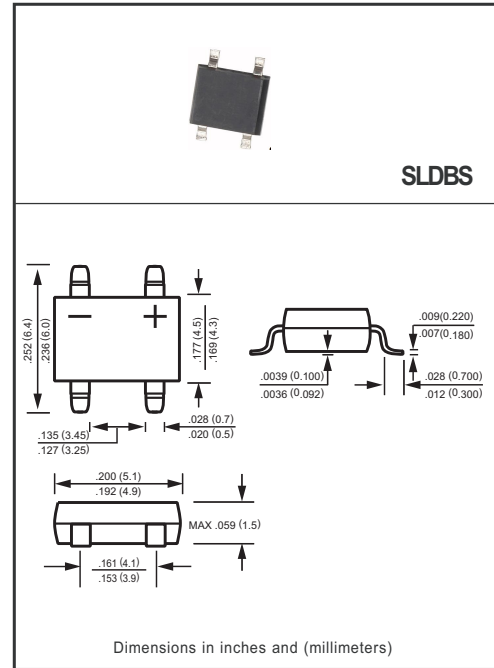
- \* Good for automation insertion
- \* Surge overload rating - 30 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-O
- \* Halogen-free
- \* Mounting position: Any
- \* Weight: 0.33 gram

**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	SLDB101S	SLDB102S	SLDB103S	SLDB104S	SLDB105S	SLDB106S	SLDB107S	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>L</sub> = 105°C	I <sub>O</sub>	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30							Amps
Typical Current Squared Time(t=8.3 ms)	I <sup>2</sup> <sub>t</sub>	3.735							A <sup>2</sup> /S
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	62.5							°C/W
	R <sub>θJL</sub>	25							
	R <sub>θJC</sub>	8							
Typical Junction Capacitance (Note 3)	C <sub>J</sub>	12							pF
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

CHARACTERISTICS	SYMBOL	SLDB101S	SLDB102S	SLDB103S	SLDB104S	SLDB105S	SLDB106S	SLDB107S	UNITS
Maximum Forward Voltage Drop per Bridge Element at 1.0A DC	$V_F$	1.0							Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	$I_R$	1.0							$\mu\text{Amps}$
		0.05							mAmps

Note: 1." RoHS compliant".

2. Thermal Resistance: Mounted on PCB.

3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

2023-11  
REV:G

## RATING AND CHARACTERISTICS CURVES ( SLDB101S THRU SLDB107S )

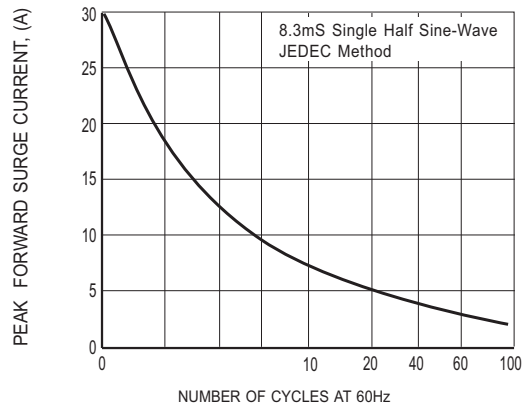


FIG. 1 - MAXIMUM NON-REPETITIVE  
FORWARD SURGE CURRENT

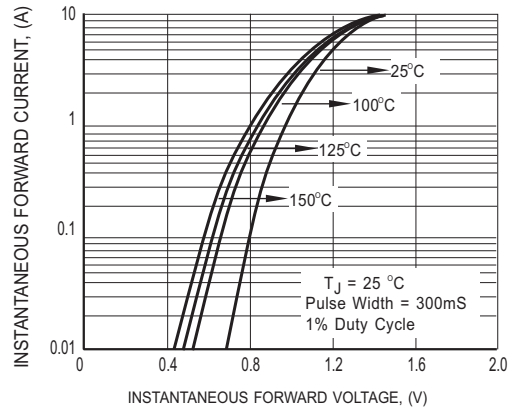


FIG.2 MAXIMUM INSTANTANEOUS  
FORWARD CHARACTERISTICS

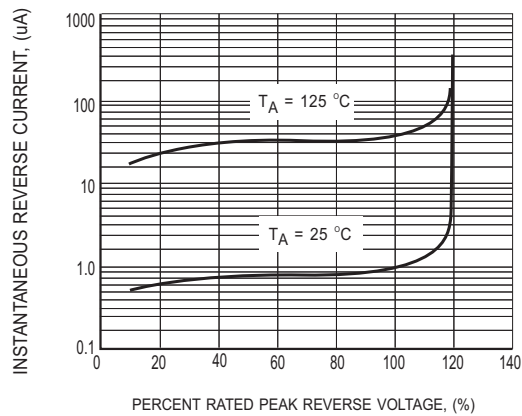


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

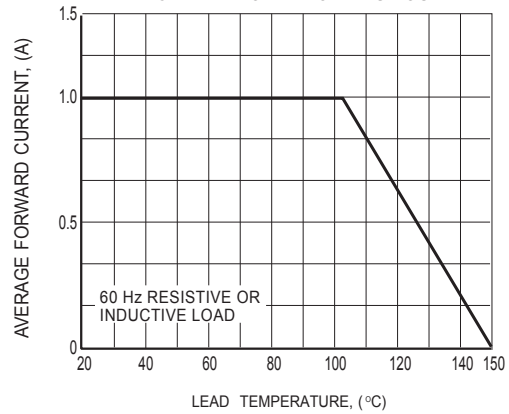
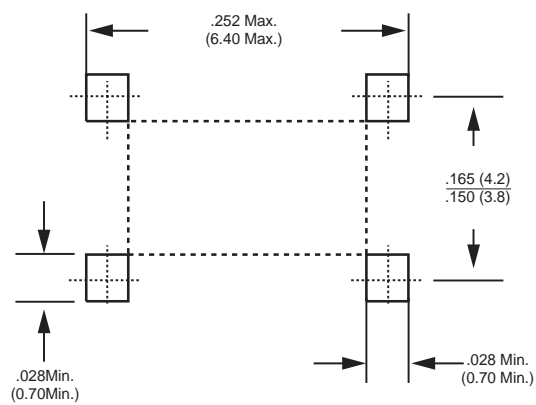


FIG.4 TYPICAL FORWARD CURRENT  
DERATING CURVE

## Mounting Pad Layout



Dimensions in inches and (millimeters)

# REEL TAPING SPECIFICATIONS FOR SURFACE MOUNT DEVICES-SLDBS

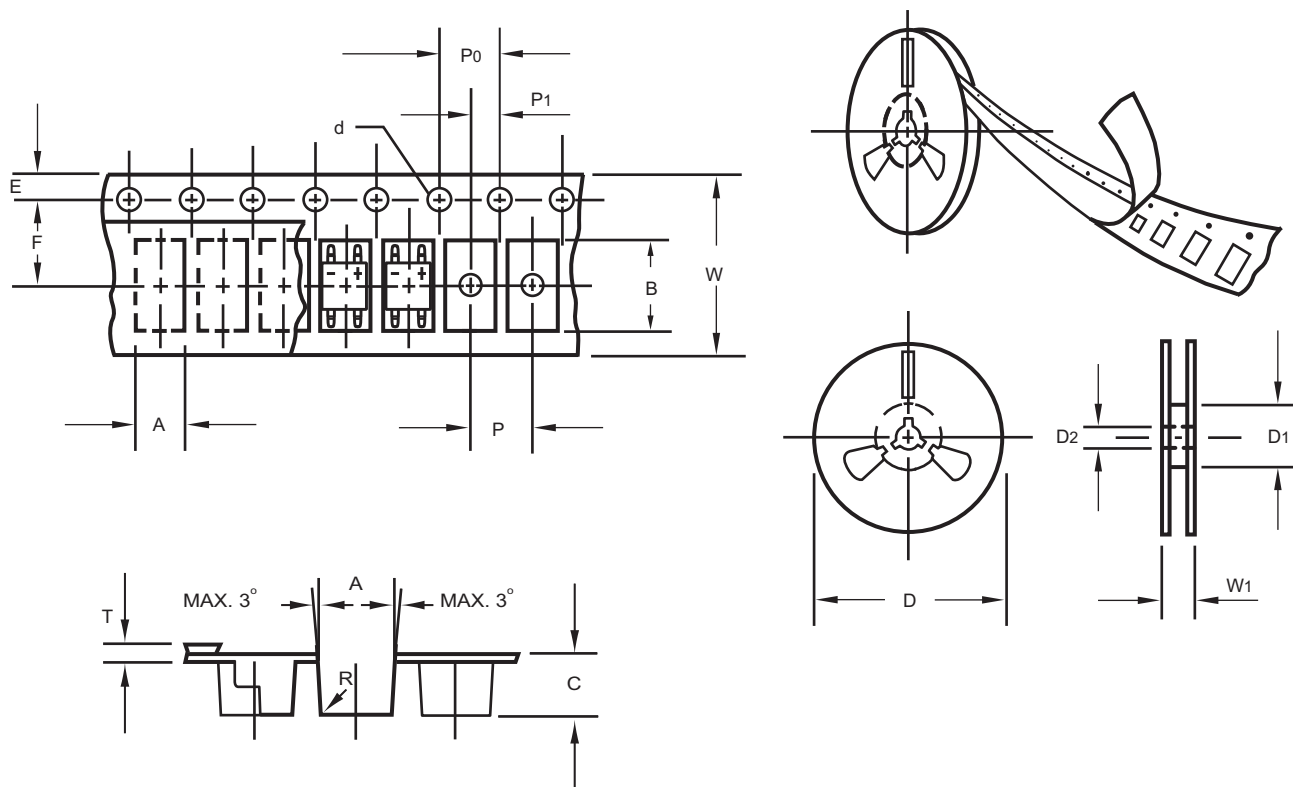
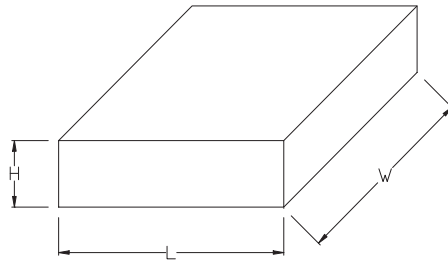


Fig.: Configuration of SLDBS TAPING

ITEM	SYMBOL	SLDBS mm(inch)
Carrier width	A	$6.0 \pm 0.1$ (0.236 $\pm$ 0.004)
Carrier length	B	$8.30 \pm 0.1$ (0.327 $\pm$ 0.004)
Carrier depth	C	$2.5 \pm 0.1$ (0.098 $\pm$ 0.004)
Sprocket hole	d	$1.5 \pm 0.1$ (0.059 $\pm$ 0.004)
Reel outside diameter	D	$330 \pm 2.0$ (13.0 $\pm$ 0.079)
Reel inner diameter	D1	50 Min.
Feed hole diameter	D2	$13 \pm 0.5$ (0.512 $\pm$ 0.020)
Stroket hole position	E	$1.5 \pm 0.1$ (0.059 $\pm$ 0.004)
Punch hole position	F	$7.65 \pm 0.05$ (0.301 $\pm$ 0.002)
Punch hole pitch	P	$8.0 \pm 0.1$ (0.315 $\pm$ 0.004)
Sprocket hole pitch	P0	$4.0 \pm 0.1$ (0.157 $\pm$ 0.004)
Embossment center	P1	$4.0 \pm 0.1$ (0.157 $\pm$ 0.004)
Totall tape thickness	T	0.6 Max.
Tape width	W	$16.0 \pm 0.2$ (0.630 $\pm$ 0.008)
Reel width	W1	$24.0 \pm 2.0$ (0.945 $\pm$ 0.079)

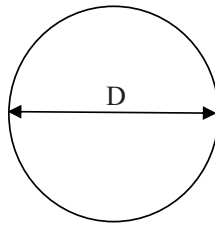
Note: 1.Devices are packed in accordance with EIA standard RS-481-A and specification given above.  
2.13 inch ( 5000 ct. ) diameter reels.

### 1. BOX



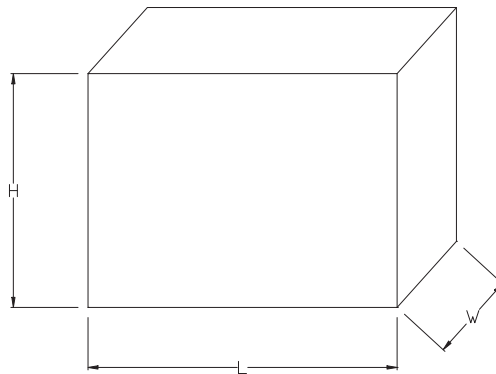
Packing Code	L (mm)	W (mm)	H (mm)
-T/W	338	338	40

### 2. REEL



Packing Code	D (mm)
-T/W	330

### 3. CARTON



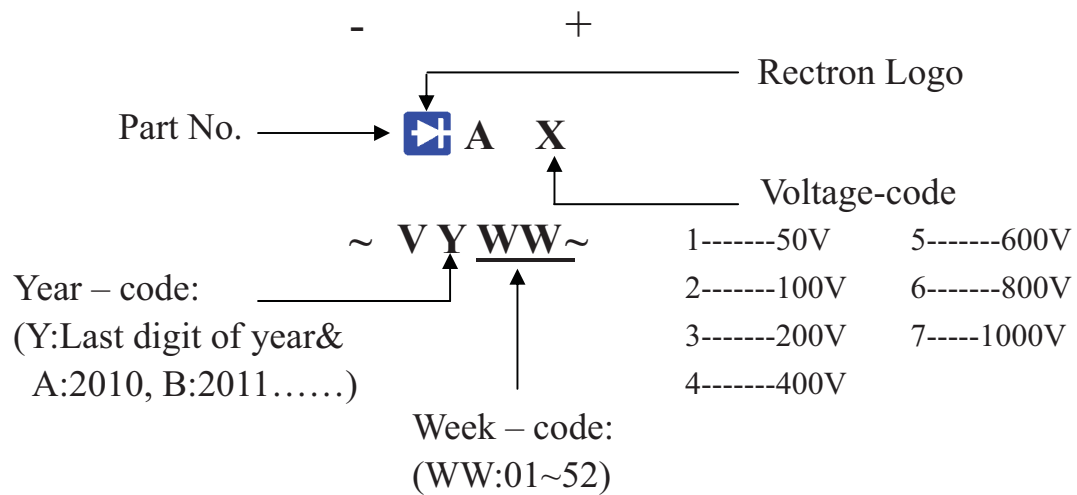
Packing Code	L (mm)	W (mm)	H (mm)
-T/W	360	355	360

## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SLDBS	-T/W	5,000	10,000	---	---	330	360*355*360	80,000	16.18

## Marking Description



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