RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

HSLDB108S

HIGH EFFICIENCY RECTIFIER

VOLTAGE 1000 Volts CURRENT 1.0 Ampere

FEATURES

* Low power loss,high efficiency
* Low leakage
* Low forward voltage drop
* High current capability
* High speed switching
* High reliability
* High current surge

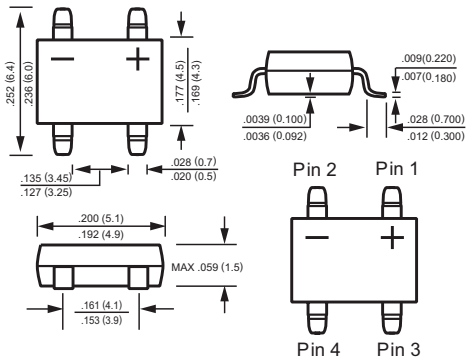
MECHANICAL DATA

* Epoxy: Device has UL flammability classification 94V-O
* Case: Molded plastic
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.33 gram
* Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

SLDBS



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	HSLDB108S	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	Volts
Maximum RMS Voltage	V_{RMS}	700	Volts
Maximum DC Blocking Voltage	V_{DC}	1000	Volts
Maximum Average Forward Rectified Current at T_A = 50°C	I_O	1.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30	Amps
Current Squared Time	I^2t	3.7	A^2/Sec
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	18	°C/W
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	60	°C/W
Typical Junction Capacitance (Note 2)	C_J	12	pF
Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to + 150	°C

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	HSLDB108S	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC		V_F	1.7	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	I_R	0.5	µA
	@T_A = 100°C		100	
Maximum Reverse Recovery Time (Note 4)		trr	75	nSec

NOTES : 1. Thermal Resistance : At 9.5mm lead length,PCB mounted.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
4. Test Conditions: I_F= 0.5A, I_R= -1.0A, I_{RR}= -0.25A.

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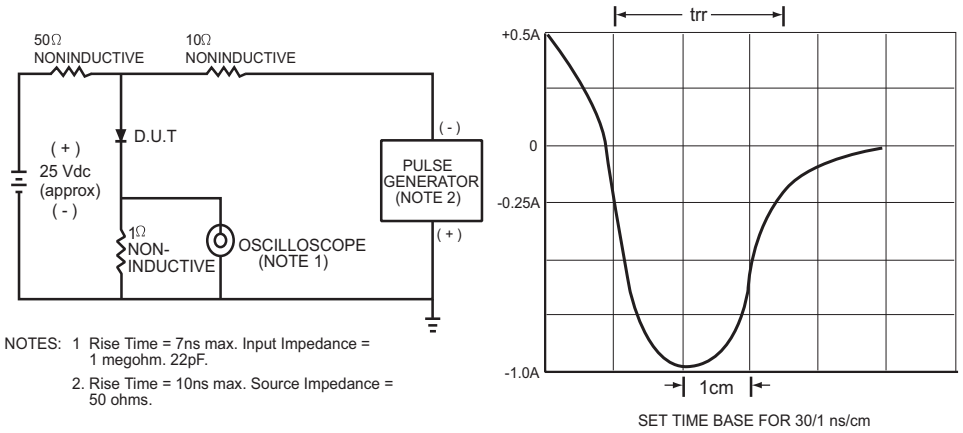
RATING AND CHARACTERISTICS CURVES (HSLDB108S)



NOTES: 1 Rise Time = 7ns max. Input Impedance = 1 megohm. 22pF.

2. Rise Time = 10ns max. Source Impedance = 50 ohms.

FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

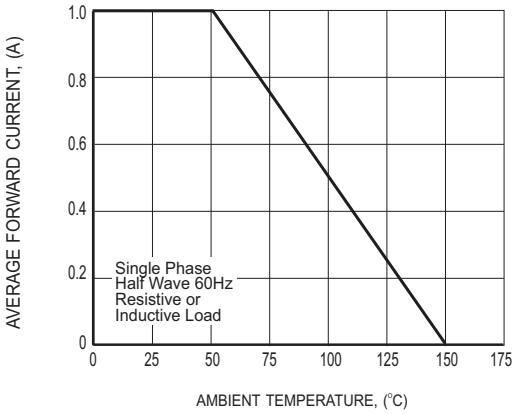


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

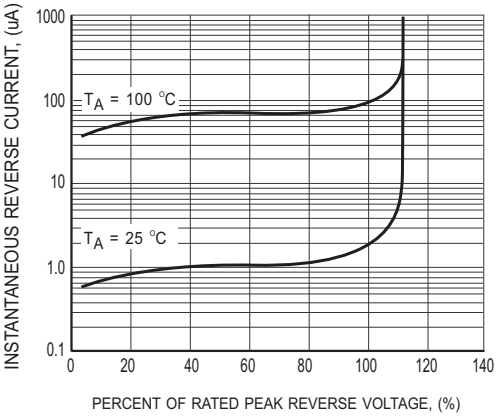


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (HSLDB108S)

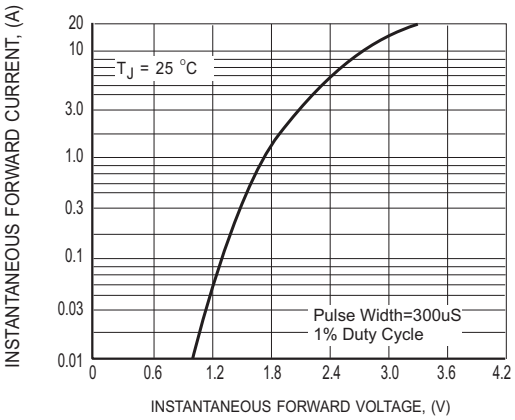


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

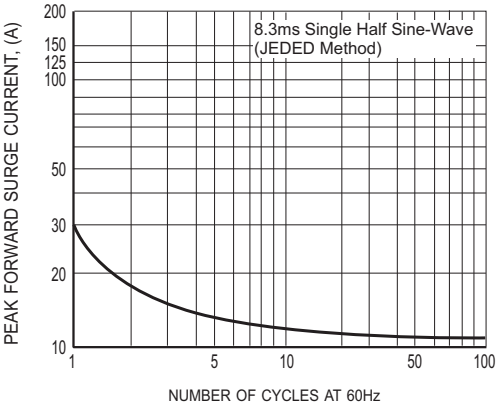


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

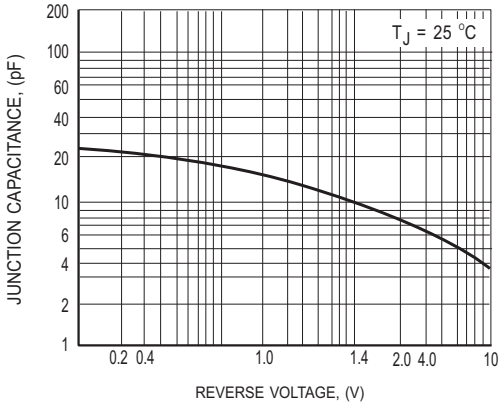
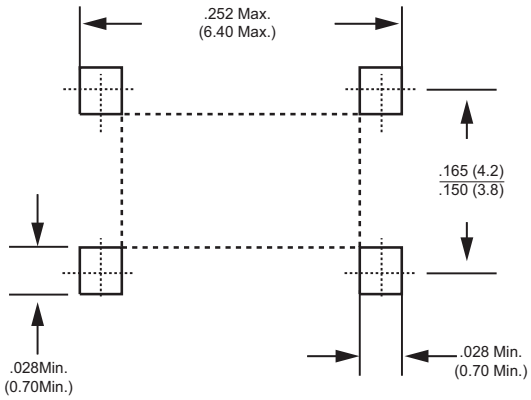


FIG.6 TYPICAL JUNCTION CAPACITANCE

Mounting Pad Layout



Dimensions in inches and (millimeters)

REEL TAPING SPECIFICATIONS FOR SURFACE MOUNT DEVICES-SLDBS

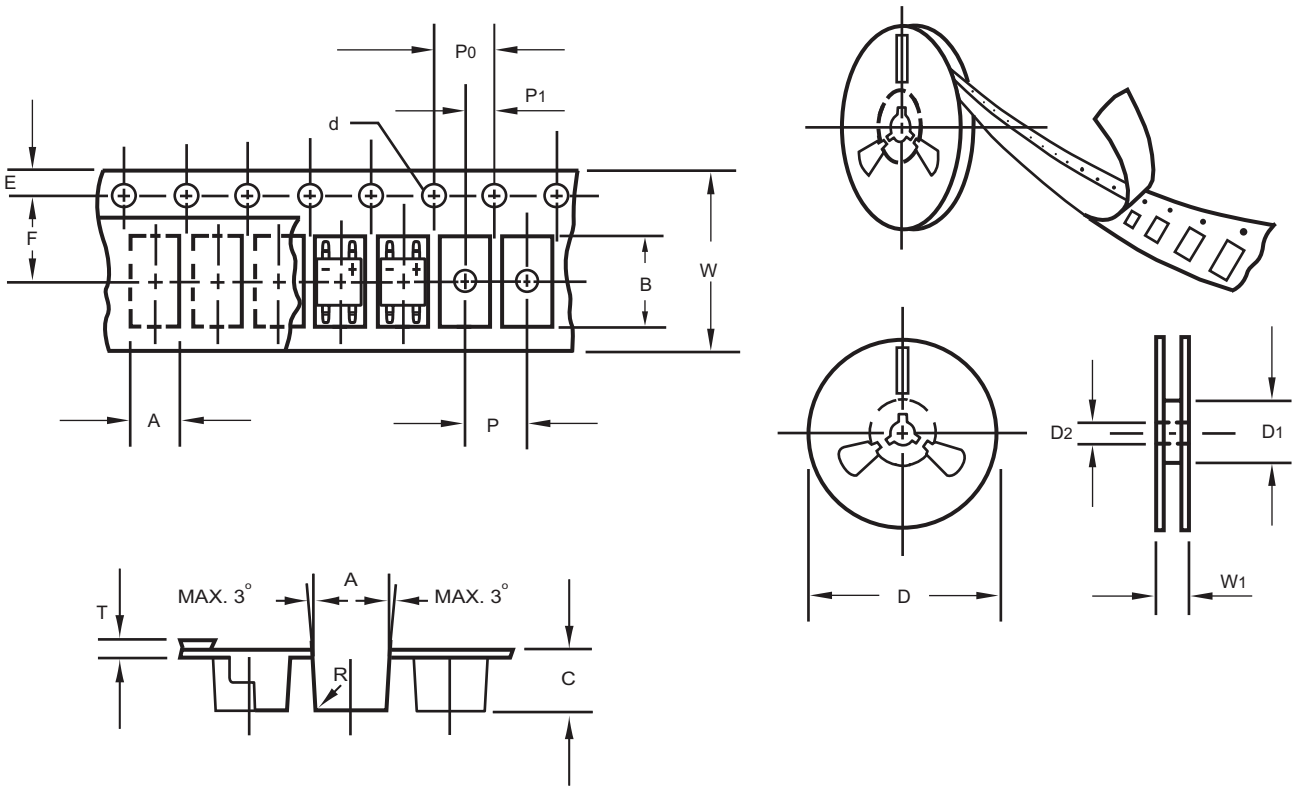
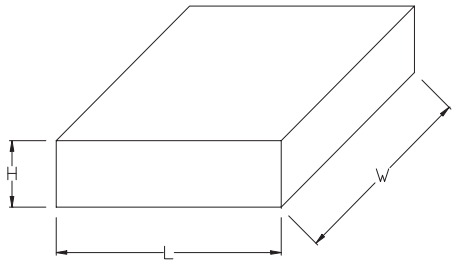


Fig.: Configuration of SLDBS TAPING

ITEM	SYMBOL	SLDBS mm(inch)
Carrier width	A	6.0 ± 0.1 (0.236 ± 0.004)
Carrier length	B	8.30 ± 0.1 (0.327 ± 0.004)
Carrier depth	C	2.5 ± 0.1 (0.098 ± 0.004)
Sprocket hole	d	1.5 ± 0.1 (0.059 ± 0.004)
Reel outside diameter	D	330 ± 2.0 (13.0 ± 0.079)
Reel inner diameter	D_1	50 Min.
Feed hole diameter	D_2	13 ± 0.5 (0.512 ± 0.020)
Stroket hole position	E	1.5 ± 0.1 (0.059 ± 0.004)
Punch hole position	F	7.65 ± 0.05 (0.301 ± 0.002)
Punch hole pitch	P	8.0 ± 0.1 (0.315 ± 0.004)
Sprocket hole pitch	P_0	4.0 ± 0.1 (0.157 ± 0.004)
Embossment center	P_1	4.0 ± 0.1 (0.157 ± 0.004)
Totall tape thickness	T	0.6 Max.
Tape width	W	16.0 ± 0.2 (0.630 ± 0.008)
Reel width	W_1	24.0 ± 2.0 (0.945 ± 0.079)

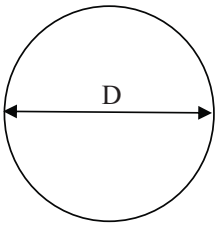
Note: 1.Devices are packed in accordance with EIA standard RS-481-A and specification given above.
2.13 inch (5000 ct.) diameter reels.

1. BOX



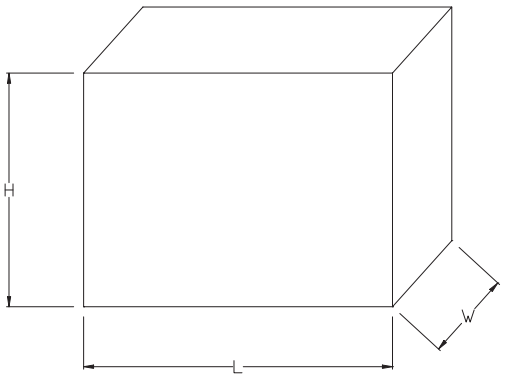
Packing Code	L (mm)	W (mm)	H (mm)
-T	340	340	40

2. REEL



Packing Code	D (mm)
-T	330

3. CARTON



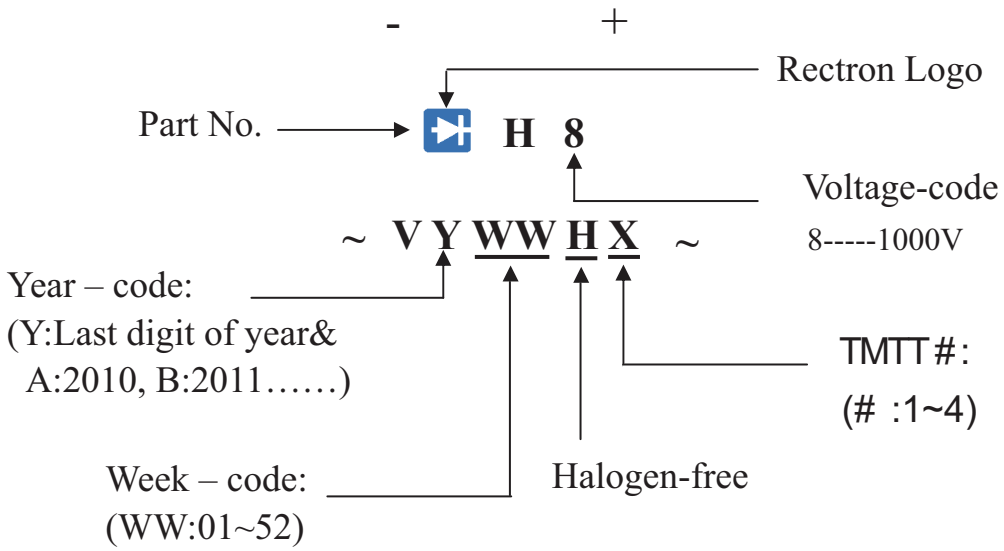
Packing Code	L (mm)	W (mm)	H (mm)
-T	355	360	360

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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