RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

HDB108LS

SURFACE MOUNT GLASS PASSIVATED HIGH EFFICIENCY SILICON RECTIFIER

VOLTAGE 1000 Volts CURRENT 1.0 Ampere

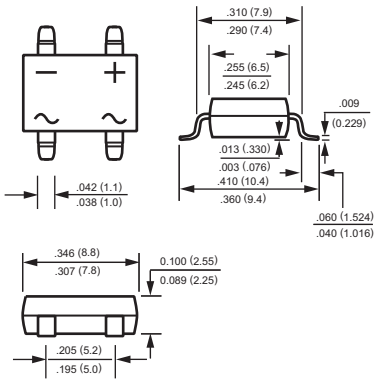
FEATURES

* Glass passivated device
* Good for automation insertion
* Low leakage current
* Ideal for printed circuit board
* Polarity symbols molded on body
* Mounting position: Any
* Weight: 0.335 gram

MECHANICAL DATA

* Epoxy: Device has UL flammability classification 94V-O

DB-LS



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

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

RATINGS	SYMBOL	HDB108LS	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 Squarad Time	I^2t	3.7	A^2/Sec
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	27	°C/W
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	75	°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	HDB108LS	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC		V_F	1.7	Volts
Maximum Full Load Reverse Current, Full cycle Average T_A =55°C		I_R	50	uA
Maximum Average Reverse Current	@T_A = 25°C		5	uA
at Rated DC Blocking Voltage	@T_A = 125°C		100	uA
Maximum Reverse Recovery Time (Note 4)		trr	75	nSec

NOTES : 1. Thermal Resistance : Mounted on PCB.
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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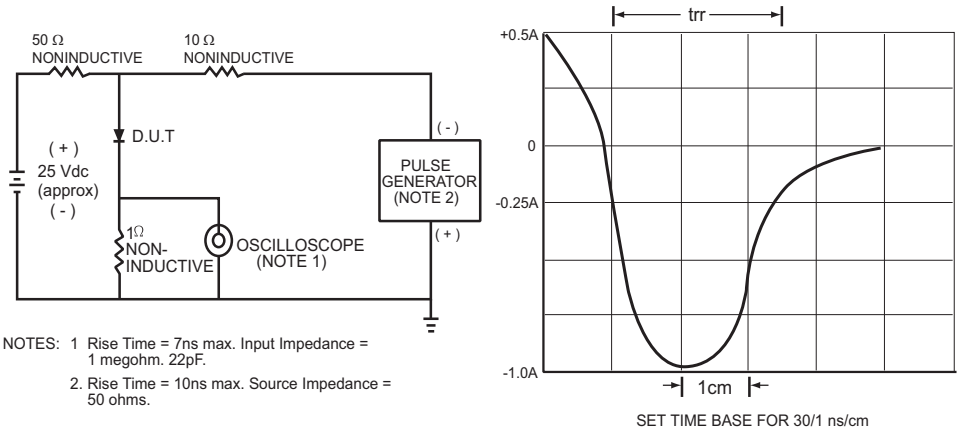
RATING AND CHARACTERISTICS CURVES (HDB108LS)



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

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

SET TIME BASE FOR 30/1 ns/cm

FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

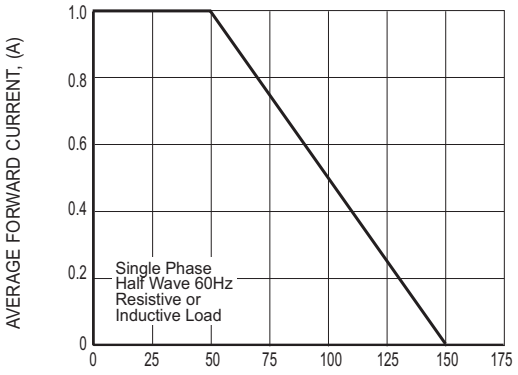


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

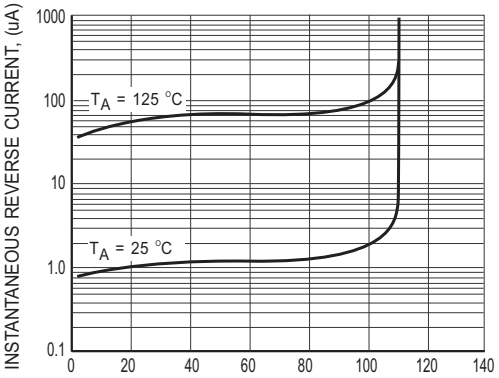
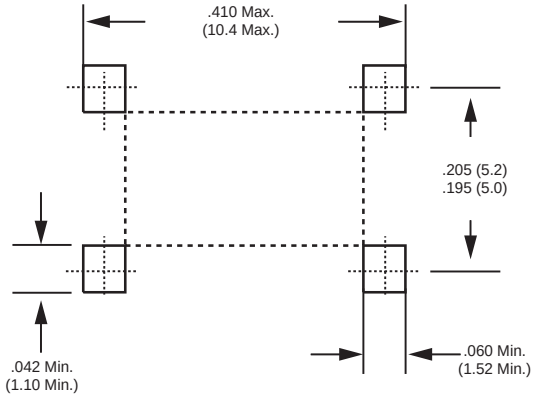


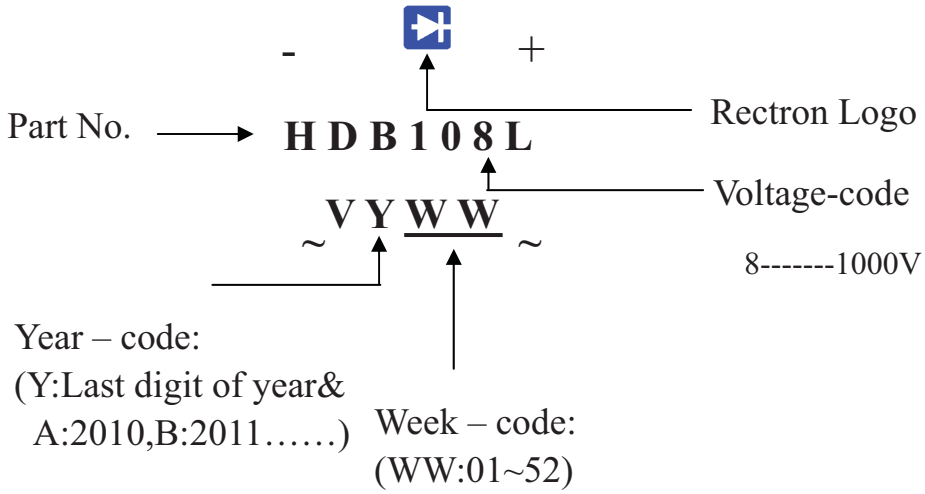
FIG.3 TYPICAL REVERSE CHARACTERISTICS

Mounting Pad Layout



Dimensions in inches and (millimeters)

Marking Description



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)
DB-LS	-T/W	1,000	1,000	9.5	52	330	360*355*360	8,000	9.5

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