

**SURFACE MOUNT GLASS PASSIVATED
HIGH EFFICIENCY SILICON RECTIFIER**
VOLTAGE 1000 Volts CURRENT 2.0 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

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.

DB-LS

Dimensions in inches and (millimeters)

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

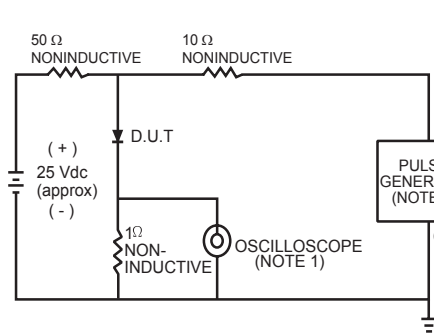
RATINGS	SYMBOL	HDB208LS	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	Volts
Maximum RMS Voltage	V_{RMS}	700	Volts
Maximum DC Blocking Voltage	V_{DC}	1000	Volts
Maximum Average Forward Rectified Current at $T_A = 50^\circ\text{C}$	I_O	2.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60	Amps
Current Squared Time	I^2t	14.9	A^2/Sec
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	20	$^\circ\text{C}/\text{W}$
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	75	$^\circ\text{C}/\text{W}$
Typical Junction Capacitance (Note 2)	C_J	20	pF
Operating Temperature Range	T_J	-55 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150	$^\circ\text{C}$

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

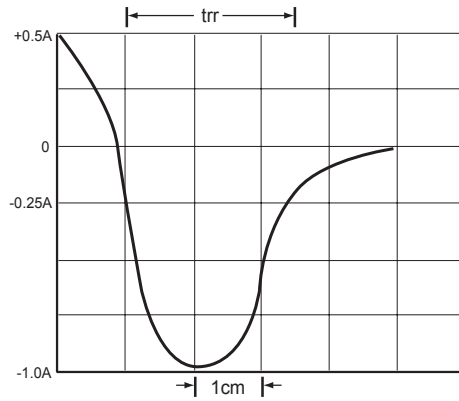
CHARACTERISTICS	SYMBOL	HDB208LS	UNITS
Maximum Instantaneous Forward Voltage at 2.0A DC	V_F	1.7	Volts
Maximum Full Load Reverse Current, Full cycle Average $T_A = 55^\circ\text{C}$	I_R	50	μA
Maximum Average Reverse Current @ $T_A = 25^\circ\text{C}$		2	μA
at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		100	μA
Maximum Reverse Recovery Time (Note 4)	t_{rr}	75	nSec

- NOTES : 1. Thermal Resistance : Mounted on PCB.
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
 3. "ROHS compliant"
 4. Test Conditions: $I_F = 0.5\text{A}$, $I_R = -1.0\text{A}$, $I_{RR} = -0.25\text{A}$.

RATING AND CHARACTERISTICS CURVES (HDB208LS)



- 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

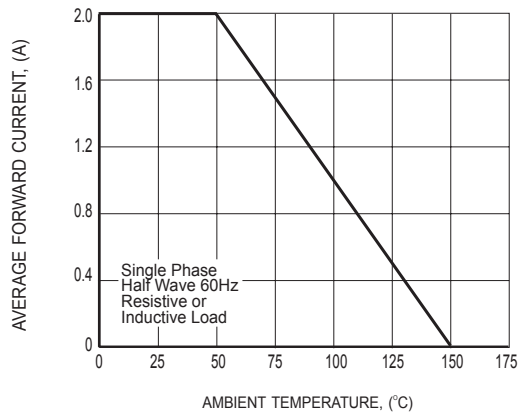


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

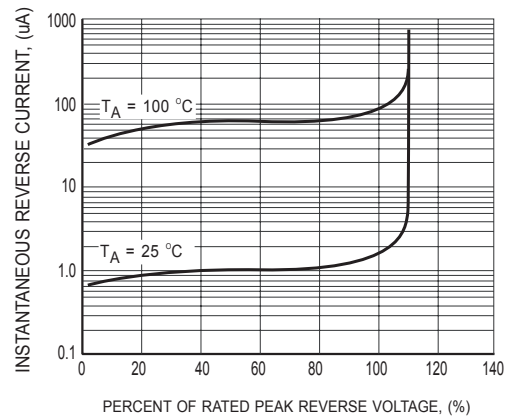


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (HDB208LS)

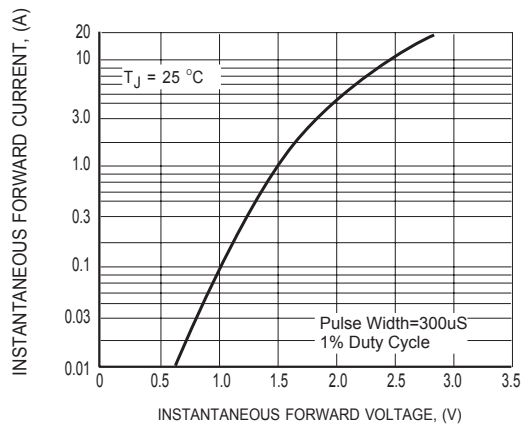


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

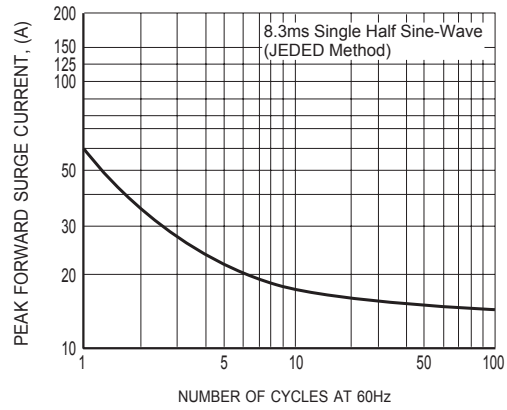


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

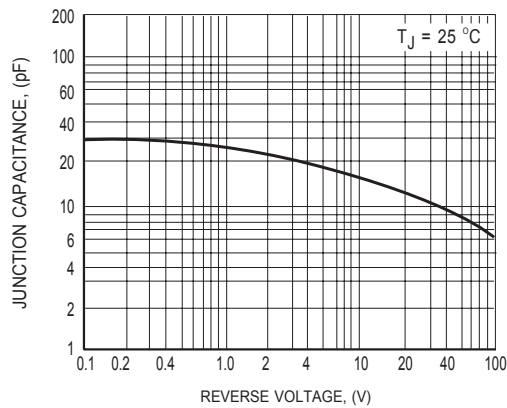
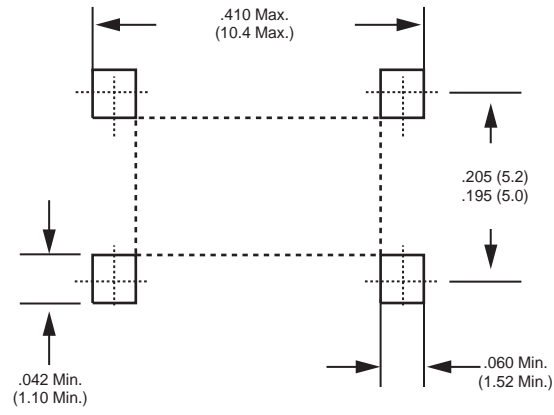


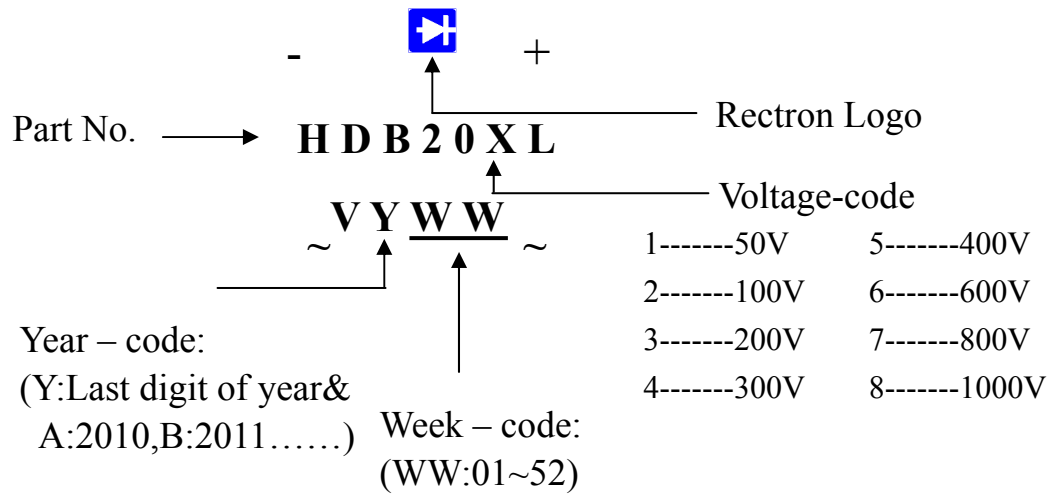
FIG.6 TYPICAL JUNCTION CAPACITANCE

Mounting Pad Layout



Dimensions in inches and (millimeters)

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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