



# THE DATASHEET OF DB105LS



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

**FEATURES**

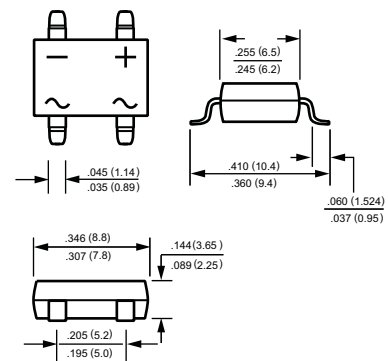
- \* Good for automation insertion
- \* Surge overload rating - 30 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any

**MECHANICAL DATA**

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



DB-LS



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

MAXIMUM RATINGS (At T<sub>A</sub> = 25°C unless otherwise noted)

RATINGS	SYMBOL	DB101LS	DB102LS	DB103LS	DB104LS	DB105LS	DB106LS	DB107LS	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>A</sub> = 40°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	I <sup>2</sup> t	3.73							A <sup>2</sup> /Sec
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	40							°C/W
	R <sub>θJL</sub>	15							
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS (At T<sub>A</sub> = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	DB101LS	DB102LS	DB103LS	DB104LS	DB105LS	DB106LS	DB107LS	UNITS
Maximum Forward Voltage Drop per Bridge Element at 1.0A DC	V <sub>F</sub>	1.0							Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@T <sub>A</sub> = 25°C	1.0							uAmps
	@T <sub>A</sub> = 125°C	0.05							mAmps

- Note: 1. ROHS compliant  
2. Thermal Resistance: Mounted on PCB.  
3. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

## RATING AND CHARACTERISTICS CURVES ( DB101LS THRU DB107LS )

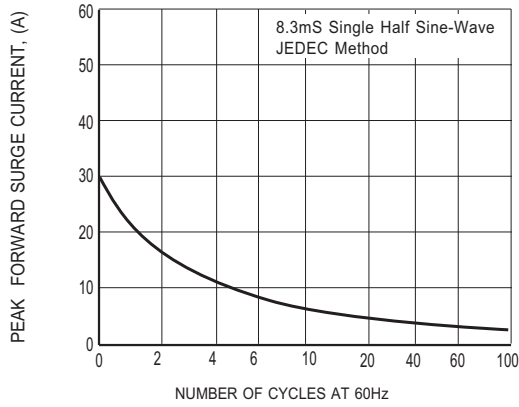


FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

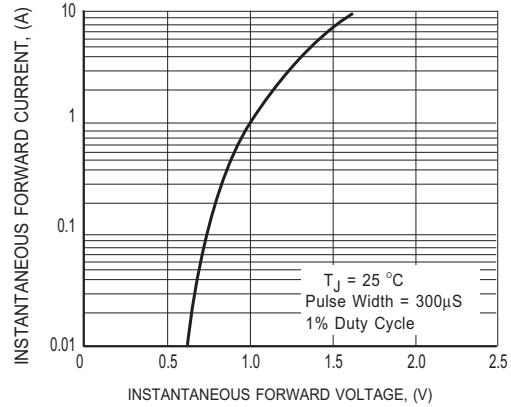


FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

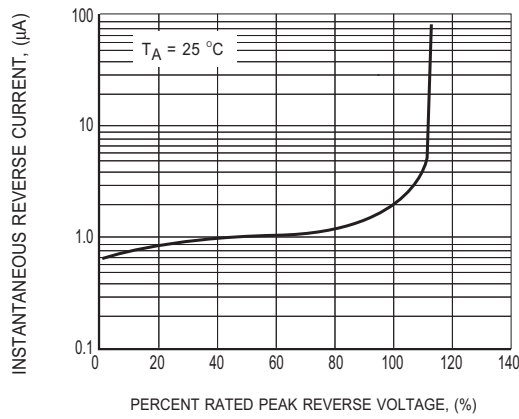


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

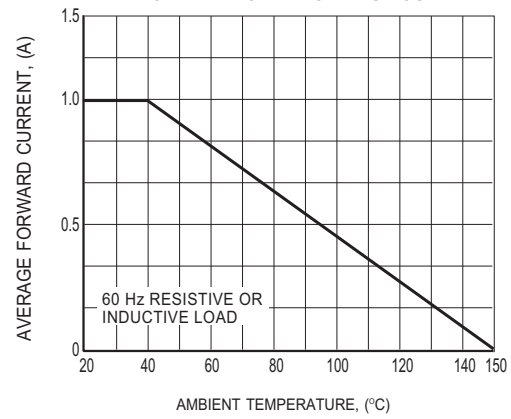
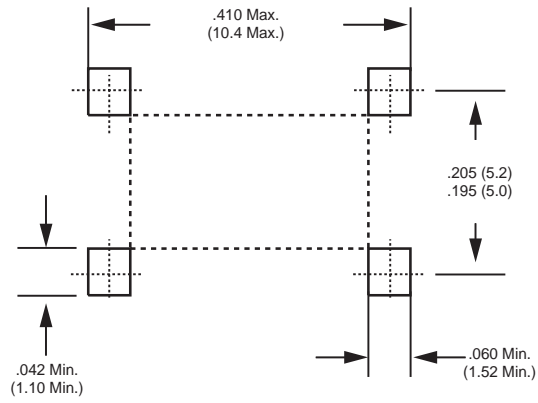


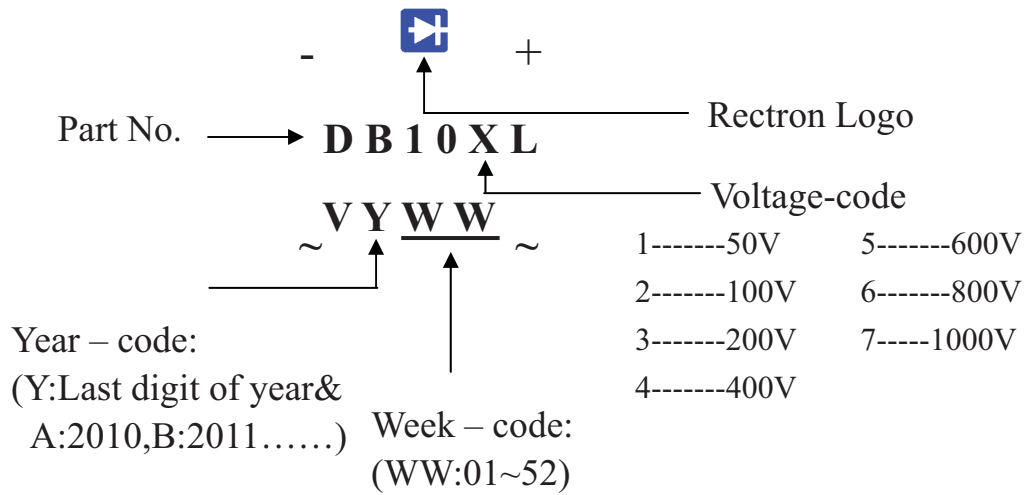
FIG. 4 TYPICAL FORWARD CURRENT DERATING CURVE

## Mounting Pad Layout



Dimensions in inches and (millimeters)

## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
DB-LS	-C	4,000	450*140*84	464*305*283	24,000	16.45

### 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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