

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**

**VOLTAGE RANGE 50 to 1200 Volts CURRENT 1.5 Ampere**

**FEATURES**

- \* Surge overload rating - 60 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* Weight: 1.0 gram

**MECHANICAL DATA**

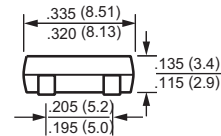
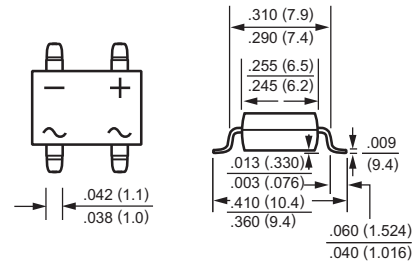
- \* Epoxy : Device has UL flammability classification 94V-0
- \* UL listed the recognized component directory, file #E94233

**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%.



**DB-S**



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	DB151S	DB152S	DB153S	DB154S	DB155S	DB156S	DB157S	DB1512S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	1200	Volts
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	840	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	1200	Volts
Maximum Average Forward Output Current at TA = 40°C	I <sub>O</sub>	1.5								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	60								Amps
Typical Current Squared Time	I <sup>2</sup> T	14.94								A <sup>2</sup> S
Typical thermal resistance	R $\theta$ JA	40								°C/W
	R $\theta$ JC	30								
	R $\theta$ JL	15								
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150								°C

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

CHARACTERISTICS	SYMBOL	DB151S	DB152S	DB153S	DB154S	DB155S	DB156S	DB157S	DB1512S	UNITS
Maximum Forward Voltage Drop per Bridge Element at 1.5A DC	V <sub>F</sub>	1.0								Volts
Maximum Reverse Current at rated DC Blocking Voltage per element	@TA = 25°C	1.0								uAmps
	@TA = 125°C	0.05								mAmps

NOTE: Suffix "-s" Surface Mount for Dip Bridge.

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## RATING AND CHARACTERISTIC CURVES ( DB151S THRU DB1512S )

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

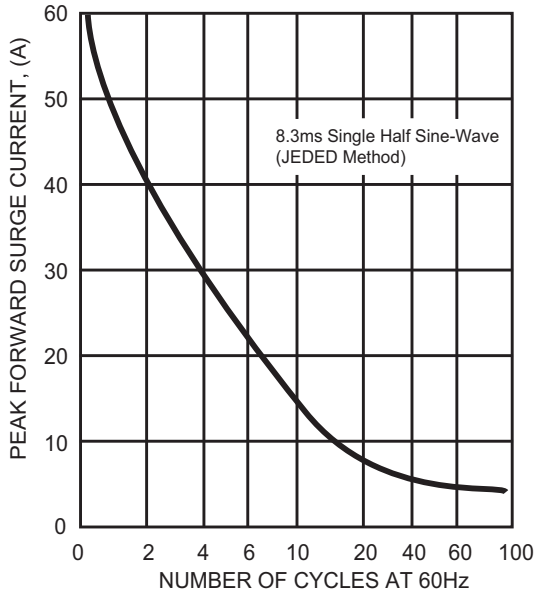


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

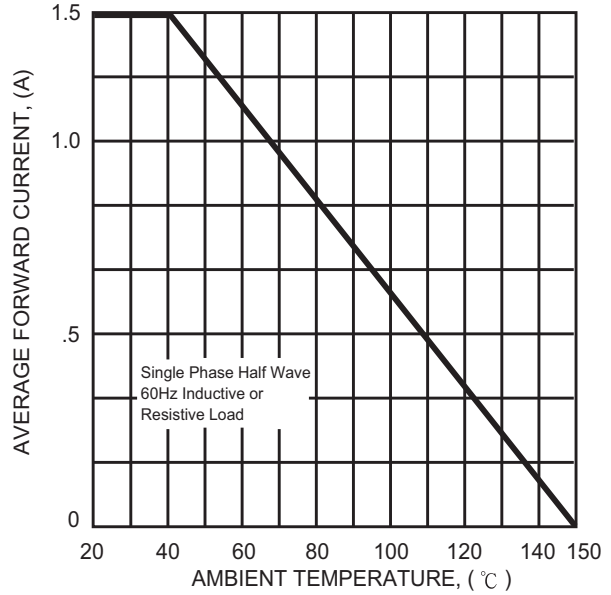


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

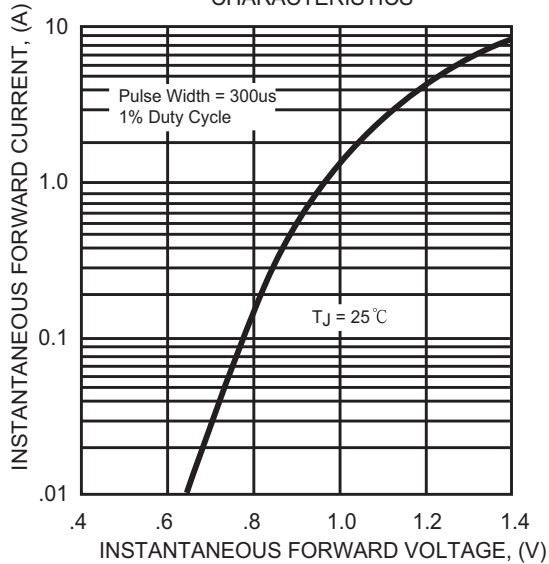
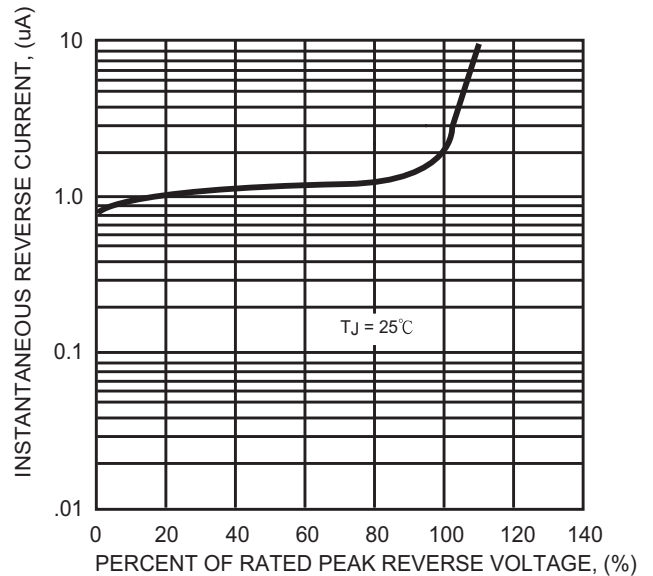
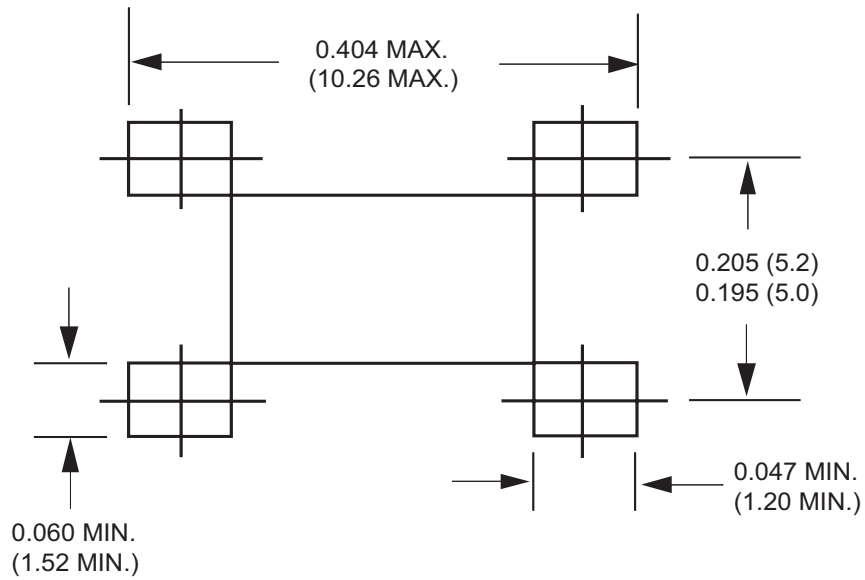


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



## Mounting Pad Layout



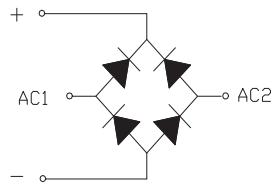
Dimensions in inches and (millimeters)



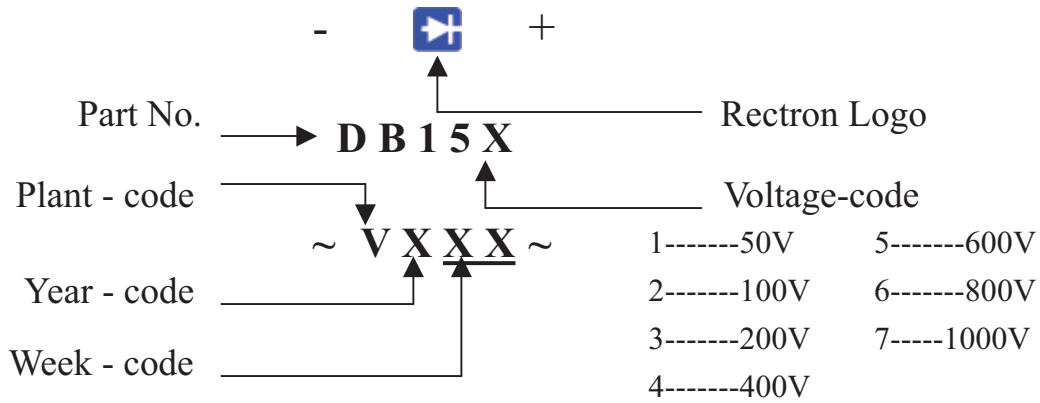
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## Attachment information about DB15XS

### 1. Internal Circuit



### 2. Marking on the body





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## Attachment information about DB15XS

### 3. Items marked on the inner box and carton

#### 3.1 On the box (for -C)

CUSTOMER  
TYPE  
LOT NO.  
QUANTITY  
Q.A.  
DATE

#### 3.2 On the reel

CUSTOMER  
TYPE  
QUANTITY  
LOT NO.  
Q.A.  
REMARK

#### 3.3 On the carton

CUSTOMER  
TYPE  
QUANTITY  
LOT NO.  
REMARK

## 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-S	-C	4,000	450*140*84	464*305*283	24,000	18.44

### 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-S	-T/W	1,000	1,000	9.5	52	330	360*355*360	8,000	9.8



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