

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

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

**FEATURES**

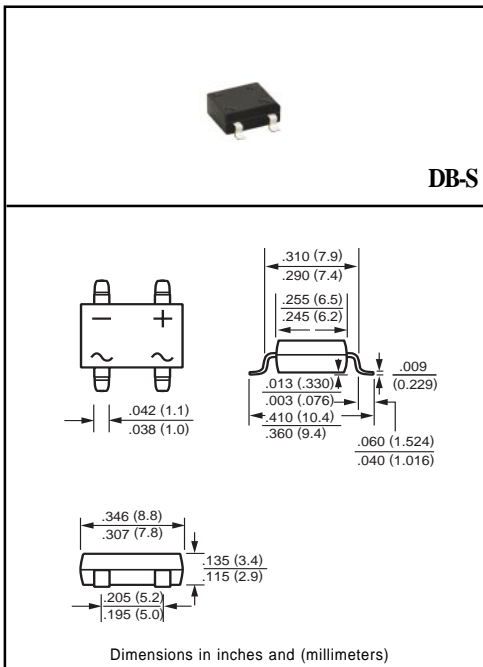
- \* Surge overload rating - 40 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* Weight: 1.0 gram

**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%.



**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>	40								Amps
Typical thermal resistance	R <sub>θJA</sub>	40								°C/W
	R <sub>θJC</sub>									
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>	1.1								Volts
Maximum Reverse Current at rated	I <sub>R</sub>	5.0								µAmps
DC Blocking Voltage per element		0.5								
										mAmps

NOTE: 1. Suffix "-s" Surface Mount for Dip Bridge.  
 2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

# RATING AND CHARACTERISTIC CURVES ( DB151S THRU DB1512S )

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

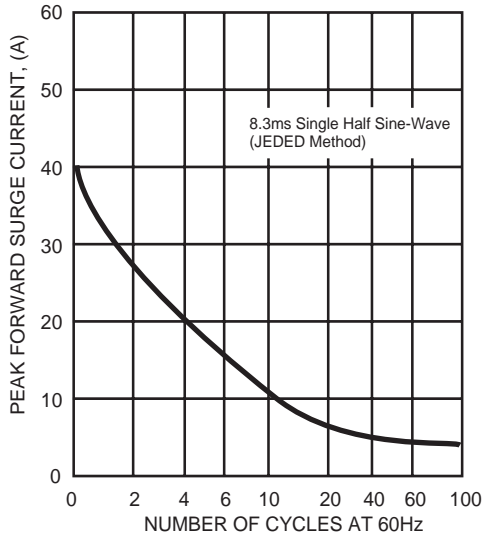


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

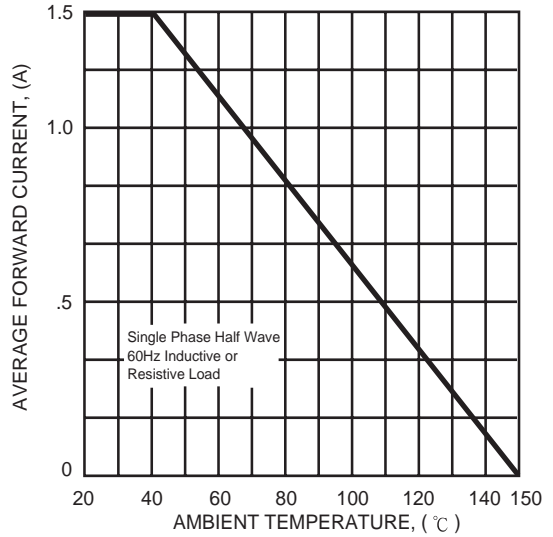


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

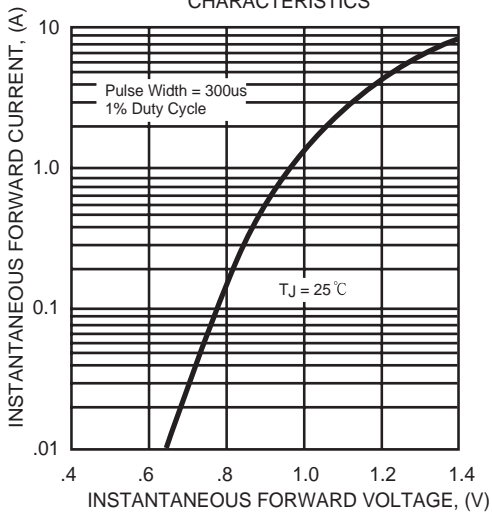
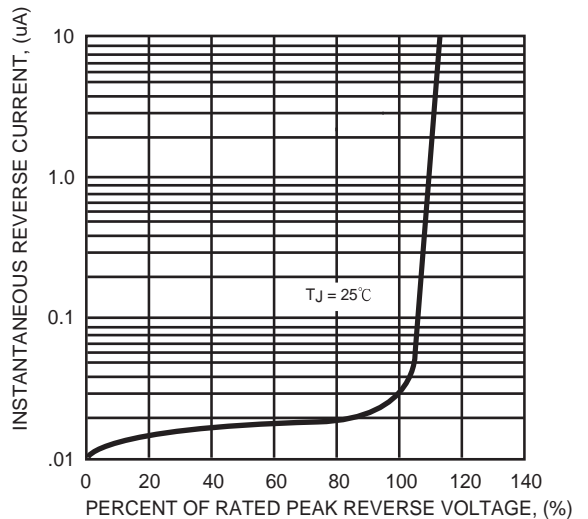
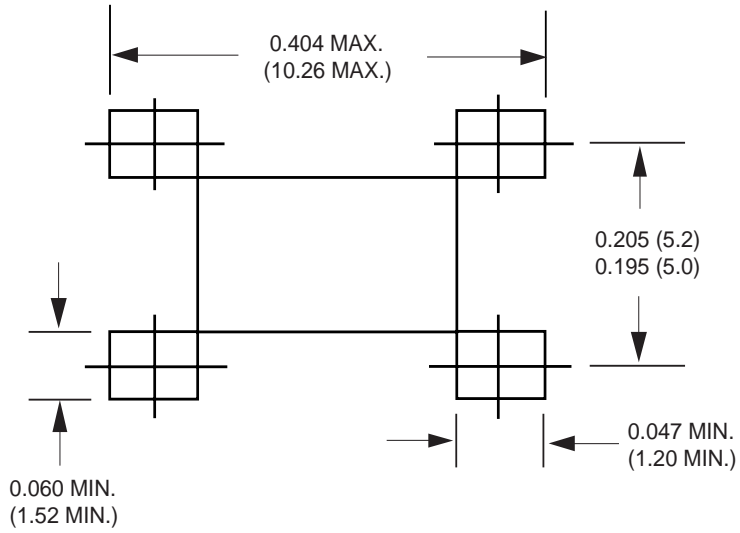


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



## Mounting Pad Layout



Dimensions in inches and (millimeters)