

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

**VOLTAGE RANGE 50 to 1200 Volts CURRENT 1.0 Ampere**

**FEATURES**

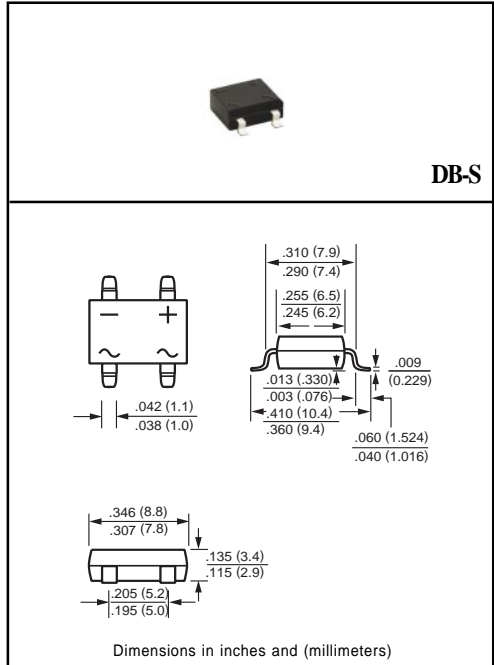
- \* Surge overload rating - 40 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* Weight: 1.0 gram

**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	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	DB1012S	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	1200	Volts
Maximum RMS Bridge Input Voltage	VRMS	35	70	140	280	420	560	700	840	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	1200	Volts
Maximum Average Forward Output Current at TA = 40°C	Io	1.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	40								Amps
Typical Thermal Resistance (Note 1)	R θJA	40								°C/W
	R θJC	9								
Operating and Storage Temperature Range	TJ,TSTG	-55 to + 150								°C

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

CHARACTERISTICS	SYMBOL	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	DB1012S	UNITS
Maximum Forward Voltage Drop per Bridge Element at 1.0A DC	VF	1.1								Volts
Maximum Reverse Current at rated	IR	5.0								uAmps
DC Blocking Voltage per element										0.5

NOTE: 1.Suffix "-s" Surface Mount for Dip Bridge.  
 2.Units mounted on P.C.B.with 0.5x0.5" (13x13mm) copper pads.  
 3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

# RATING AND CHARACTERISTIC CURVES ( DB101S THRU DB1012S )

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

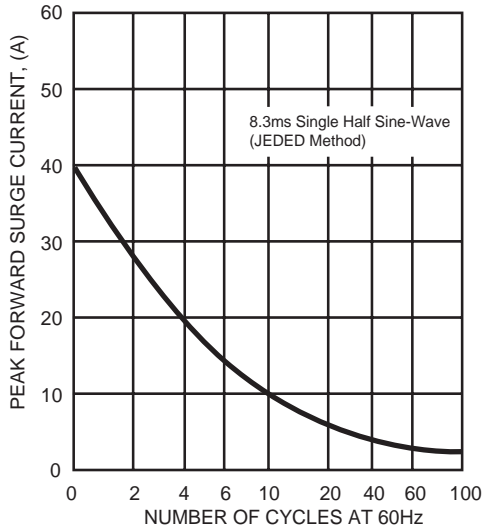


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

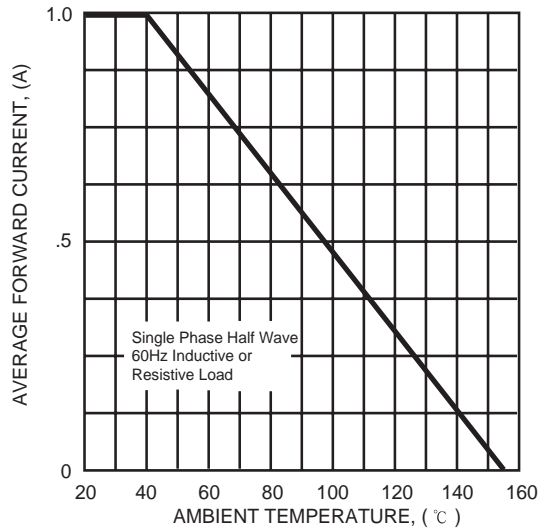


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

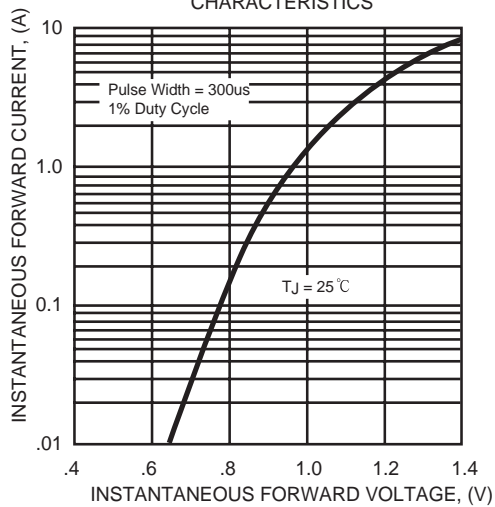
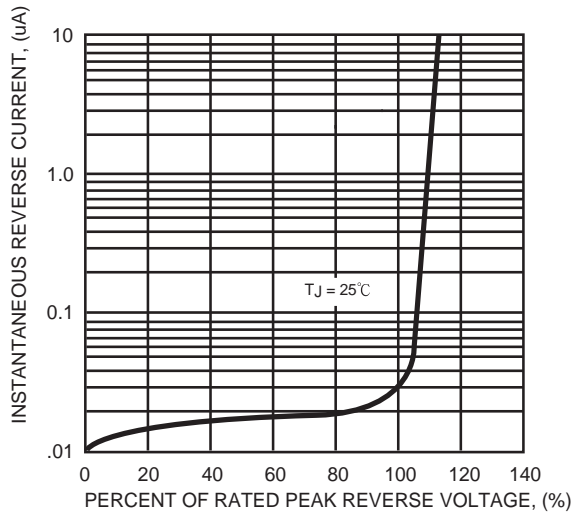
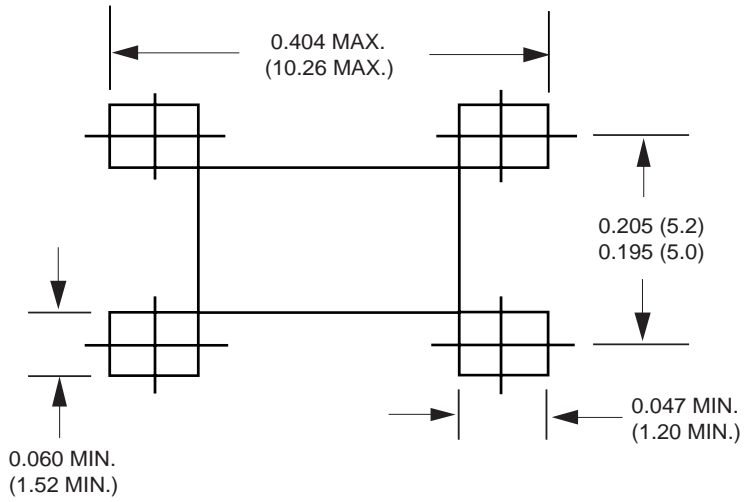


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



## Mounting Pad Layout



Dimensions in inches and (millimeters)

# Mouser Electronics

Authorized Distributor

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## Rectron:

[DB107SC](#) [DB105SC](#) [DB157SC](#) [DB105C](#) [DB102SC](#) [DB101S-T](#) [DB103](#) [DB102](#) [DB106](#) [DB106S](#) [DB105](#) [DB107S](#)  
[DB102S](#) [DB101](#) [DB153SC](#) [DB151SC](#) [DB104S-T](#) [DB106-T-S-NTC](#) [DB155SC](#) [DB152SC](#) [DB156SC](#) [DB154SC](#)  
[DB1012S-T](#) [DB106SC](#) [DB103S-T](#) [DB104S](#) [DB102C](#) [DB107C](#) [DB1012SC](#) [DB105S](#) [DB1012S](#) [DB101S-T-S-NT](#)  
[DB104-C-S-NT](#) [DB107S-T-S-NT](#)