

**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

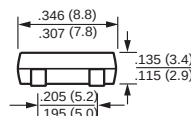
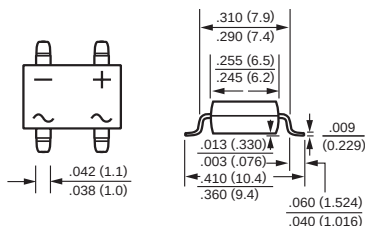
- * Epoxy : Device has UL flammability classification 94V-0
- * UL listed the recognized component directory, file #E94233

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%.



DB-S



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	DB1012S	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	1200	Volts
Maximum RMS Bridge Input Voltage	V _{RMS}	35	70	140	280	420	560	700	840	Volts
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	1200	Volts
Maximum Average Forward Output Current at T _A = 40°C	I _O	1.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	40								Amps
Typical Thermal Resistance (Note 1)	R θ J A	40								°C/W
	R θ J C	9								
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 to + 150								°C

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ 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	V_F	1.1								Volts
Maximum Reverse Current at rated	I_R	5.0								μAmps
DC Blocking Voltage per element		0.5								mAmps

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)".

2005-2

REV:A

RATING AND CHARACTERISTIC CURVES (DB101S THRU DB1012S)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

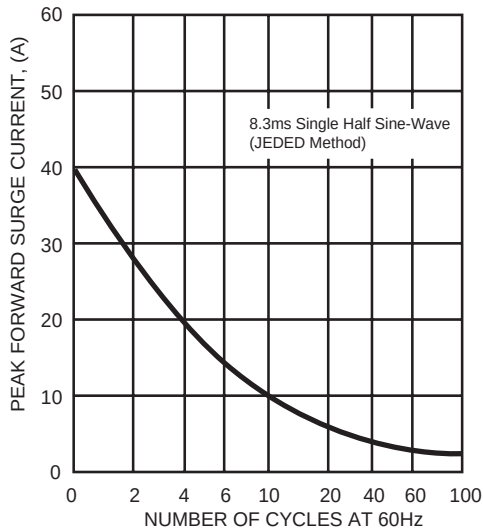


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

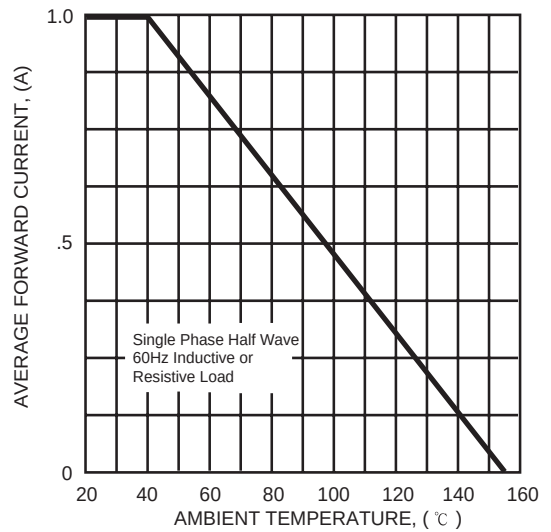


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

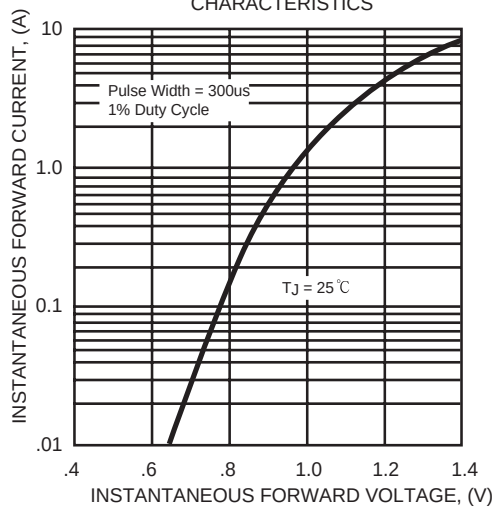
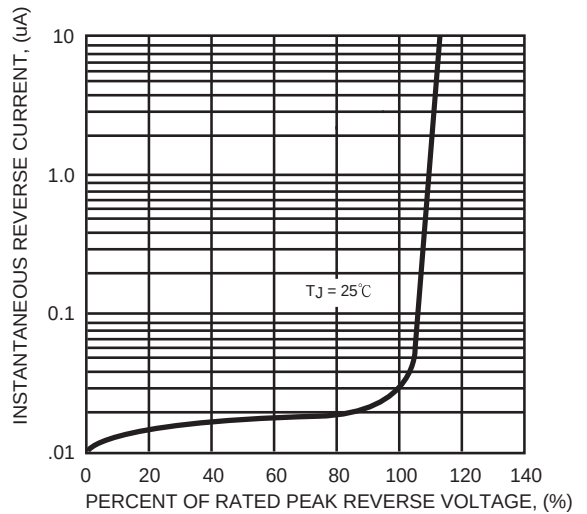
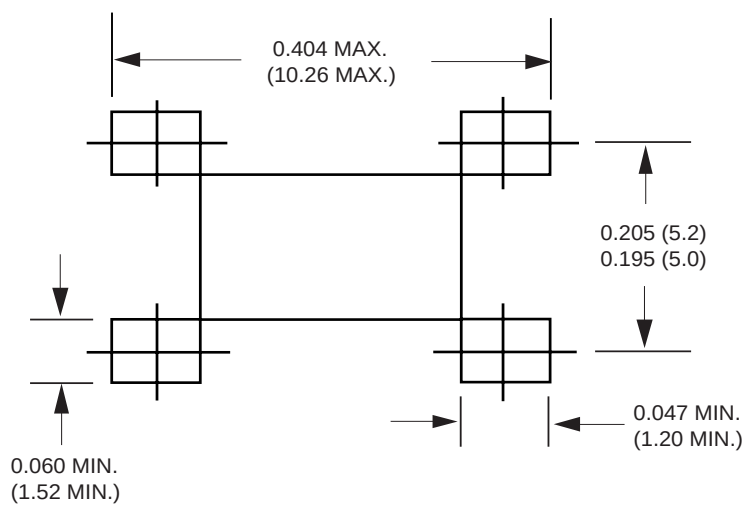


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



Mounting Pad Layout



Dimensions in inches and (millimeters)