

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

FEATURES

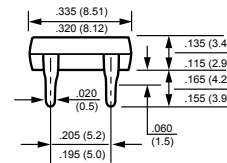
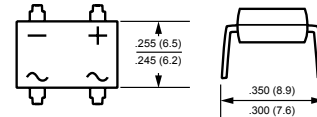
- * Good for automation insertion
- * Surge overload rating - 50 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 1.0 gram

MECHANICAL DATA

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



DB-1



Dimensions in inches and (millimeters)

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 $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	DB107-C-S-R01	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	Volts
Maximum RMS Bridge Input Voltage	V_{RMS}	700	Volts
Maximum DC Blocking Voltage	V_{DC}	1000	Volts
Maximum Average Forward Output Current at $T_A = 40^\circ\text{C}$	I_O	1.0	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50	Amps
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40	$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	15	
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	DB107-C-S-R01	UNITS	
Maximum Forward Voltage Drop per Bridge Element at 1.0A DC	V_F	1.1	Volts	
Maximum Reverse Current at Rated DC Blocking Voltage per element	I_R	@ $T_A = 25^\circ\text{C}$	2.0	μAmps
		@ $T_A = 125^\circ\text{C}$	0.5	mAmps

Note: 1. "Fully ROHS compliant", "100% Sn plating (Pb-free).
2. Thermal Resistance: PCB mounted.

RATING AND CHARACTERISTICS CURVES (DB107-C-S-R01)

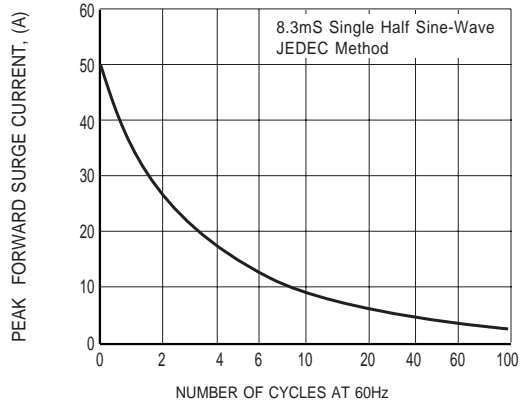


FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

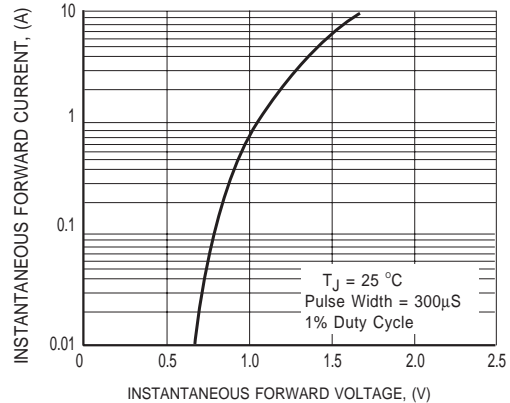


FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

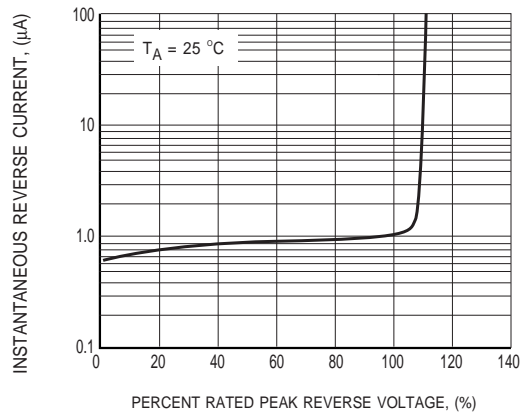


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

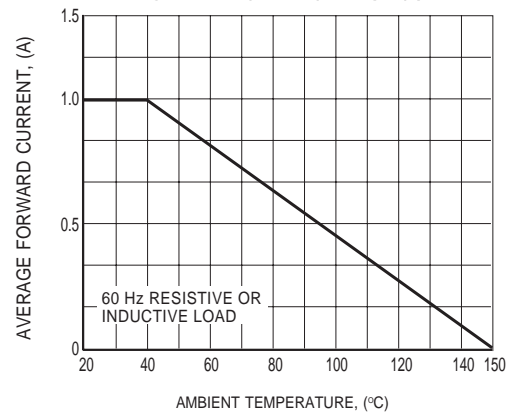


FIG. 4 TYPICAL FORWARD CURRENT DERATING CURVE

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