



## DB101 - DB107

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

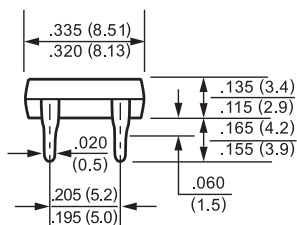
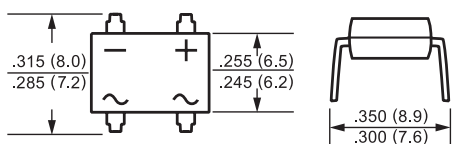
**VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 1.0 Ampere**

### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Symbols molded or marked on body
- \* Mounting position: Any
- \* Weight: 0.4 gram

### FEATURES

- \* Good for automation insertion
- \* Surge overload rating - 50 Amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction
- \* Glass passivated junction



Dimensions in inches and (millimeters)

DB-1



### 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%.

PARAMETER		SYMBOL	DB101	DB102	DB103	DB104	DB105	DB106	DB107	UNITS
Maximum Recurrent Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at T <sub>A</sub> = 40°C		I <sub>O</sub>	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave Superimposed on rated load (JEDEC Method)		I <sub>FSM</sub>	50							Amps
Maximum Forward Voltage Drop per element at 1.0A DC		V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated	@T <sub>A</sub> = 25°C	I <sub>R</sub>	10							uAmps
DC Blocking Voltage per element	@T <sub>A</sub> = 125°C		500							
I <sup>2</sup> t Rating For Fusing ( t<8.3ms )		I <sup>2</sup> t	10							A <sup>2</sup> Sec
Typical Junction Capacitance ( Note 1 )		C <sub>J</sub>	25							pF
Typical Thermal Resistance ( Note 2 )		RθJA	40							°C/W
Operating and Storage Temperature Range		T <sub>J,TSTG</sub>	-65 to +150							°C

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts

2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13x13mm) copper pads.



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### RATING AND CHARACTERISTIC CURVES

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

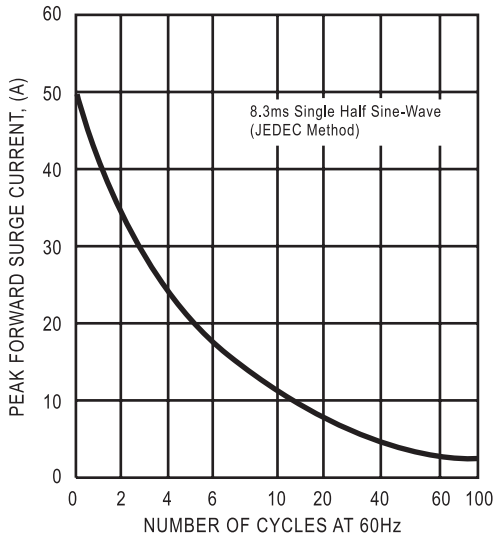


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

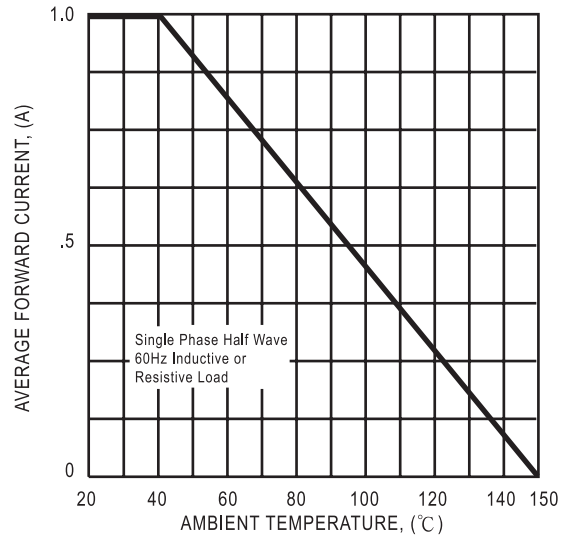


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

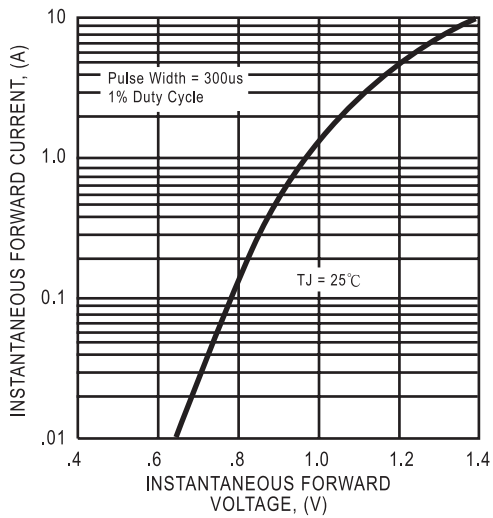


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

