



# DB101 - DB107

# SINGLE-PHASE SILICON BRIDGE RECTIFIER

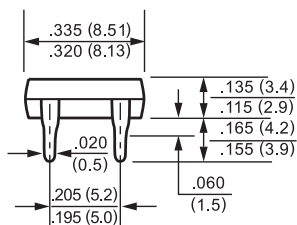
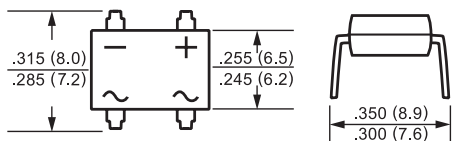
**VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 1.0 Ampere**

## 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	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Output Current at $T_A = 40^\circ C$	$I_O$	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							Amps
Maximum Forward Voltage Drop per element at 1.0A DC	$V_F$	1.1							Volts
Maximum DC Reverse Current at Rated	$I_R$	10							uAmps
DC Blocking Voltage per element		500							
$I^2t$ Rating For Fusing ( $t < 8.3ms$ )	$I^2t$	10							$A^2Sec$
Typical Junction Capacitance ( Note 1)	$C_J$	25							pF
Typical Thermal Resistance ( Note 2 )	$ROJA$	40							$^\circ C/W$
Operating and Storage Temperature Range	$T_{J,TSTG}$	-65 to +150							$^\circ C$

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

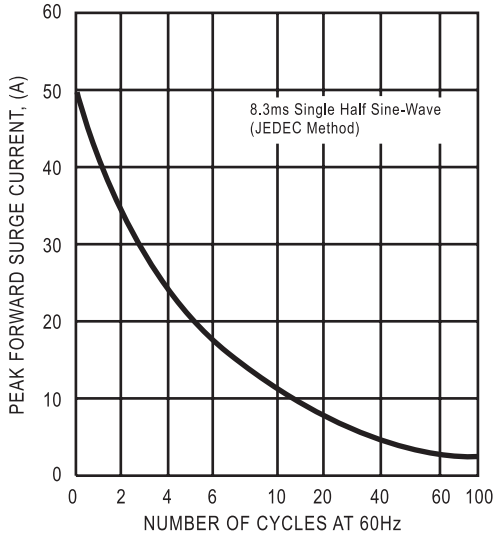


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

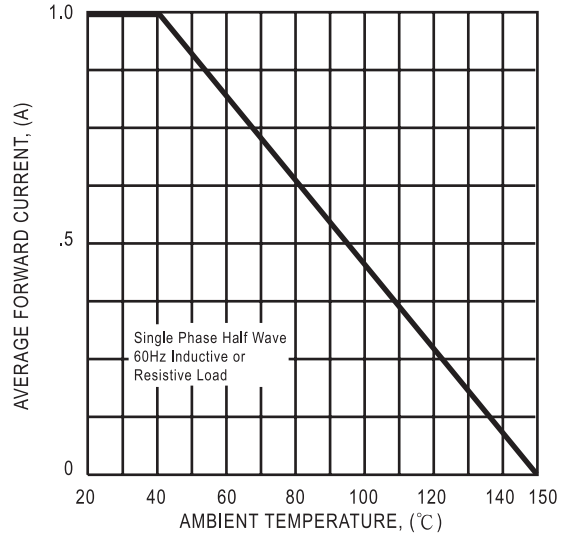


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

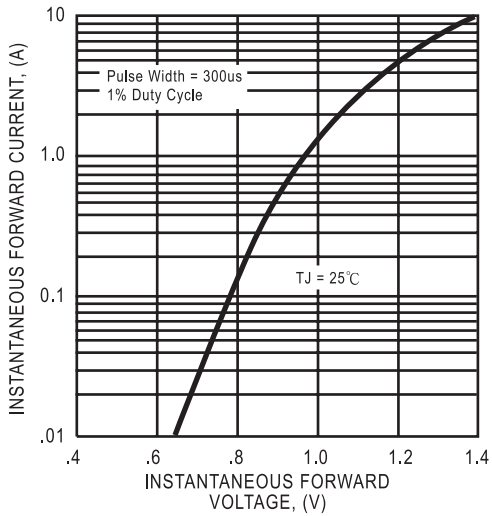


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

