

DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

THRU

DB101

DB107

CURRENT - 1.0 Ampere

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

FEATURES

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

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed

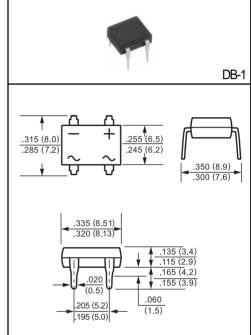
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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%.

- * Polarity: Symbols molded or marked on body
- * Mounting position: Any
- * Weight: 0.4 gram



Dimensions in inches and (millimeters)

		SYMBOL	DB101	DB102	DB103	DB104	DB105	DB106	DB107	UNITS
Maximum Recurrent Peak Reverse Voltage		Vrrm	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		Vrms	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		VDC	50	100	200	400	600	800	1000	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	50						Amps	
Maximum Forward Voltage Drop per element at 1.0A DC		Vf	1.1							Volts
Maximum DC Reverse Current at Rated	@TA = 25°C	- IR	10					uAmps		
DC Blocking Voltage per element	@TA = 125°C		500							uAmps
I ² t Rating for Fusing (t<8.3ms)		l ² t	10							A ² Sec
Typical Junction Capacitance (Note1)		CJ	25							pF
Typical Thermal Resistance (Note 2)		RθJA	40							°C/W
Operating and Storage Temperature Range		T J,TSTG	-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.

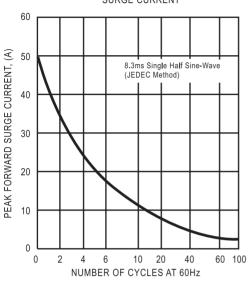


FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

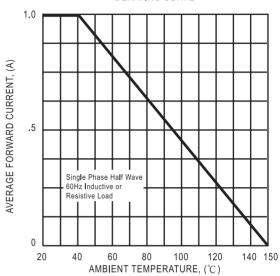
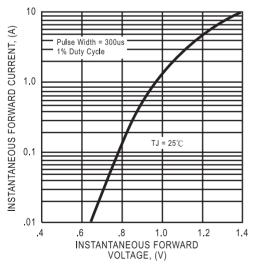


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTICS



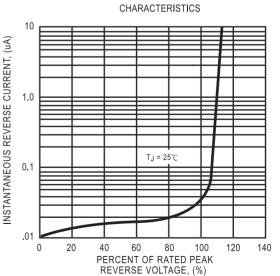


FIG. 4 - TYPICAL REVERSE

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