

**Kingtronics**®**DB101 THRU  
DB107****SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER**  
**REVERSE VOLTAGE 50 to 1000 Volts    FORWARD CURRENT 1.0 Ampere****FEATURES**

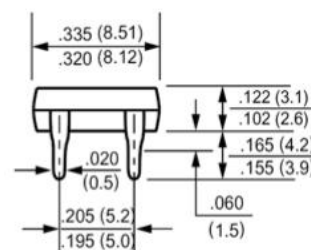
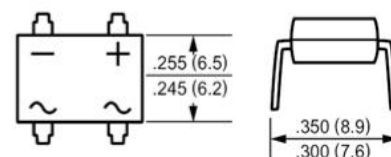
Plastic material has Underwriters Laboratory  
Flammability Classification 94V-0.  
High surge overload rating of 50 Amperes peak.  
Ideal for printed circuit board.  
Glass passivated chip junction.

**MECHANICAL DATA**

Case: Molded plastic, DB.  
Epoxy: UL 94V-0 rate flame retardant.  
Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed.  
Mounting position: Any.  
Weight: 0.02ounce, 0.4gram.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified ,  
Single phase, half wave, 60Hz, resistive or inductive load.    Dimensions in inches and (millimeters)  
For capacitive load derate current by 20%



PARAMETER	SYMBOL	DB101	DB102	DB103	DB104	DB105	DB106	DB107	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_A=40^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							A
Maximum forward Voltage at 1.0A DC and 25°C	$V_F$	1.1							V
Maximum DC Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking voltage $T_A=125^\circ\text{C}$	$I_R$	5.0 500							uA
Typical Junction Capacitance (Note 1)	$C_J$	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	40							°C/W
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	15							°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							°C

1- Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2- Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads.

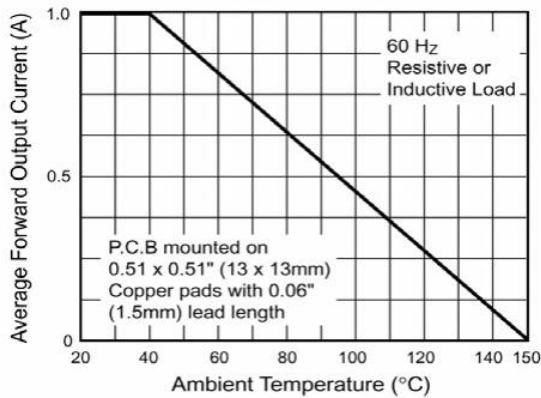
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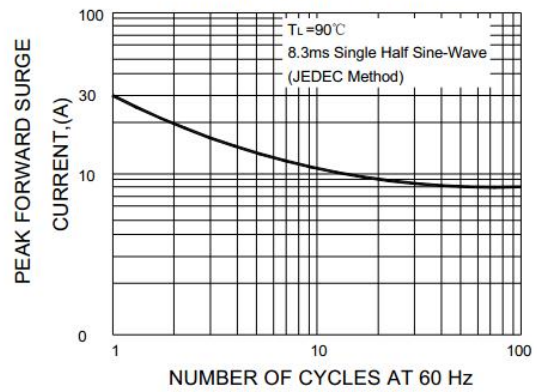
# DB101 THRU DB107

## RATINGS AND CHARACTERISTIC CURVES

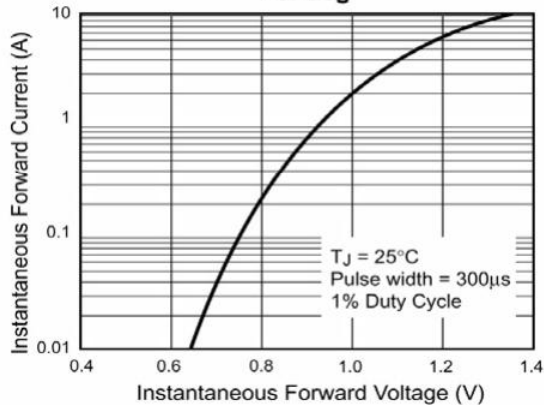
**Fig. 1 - Derating Curve Output Rectified Current**



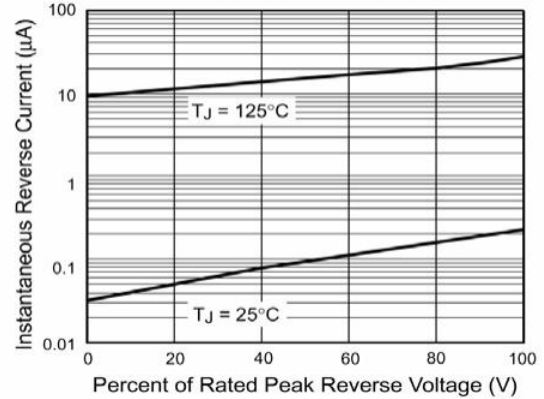
**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



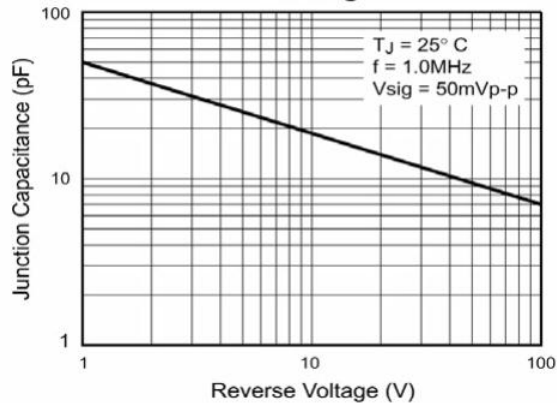
**Fig. 3 - Typical Forward Characteristics Per Leg**



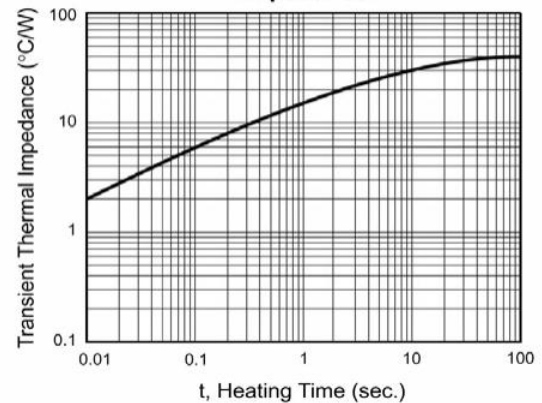
**Fig. 4 - Typical Reverse Leakage Characteristics Per Leg**



**Fig. 5 - Typical Junction Capacitance Per Leg**



**Fig. 6 - Typical Transient Thermal Impedance**



Note: Specifications are subject to change without notice.

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