

# Kingtronics®

## DB101S THRU DB107S

### SINGLE-PHASE GLASS PASSIVATED SILICON SURFACE MOUNT 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

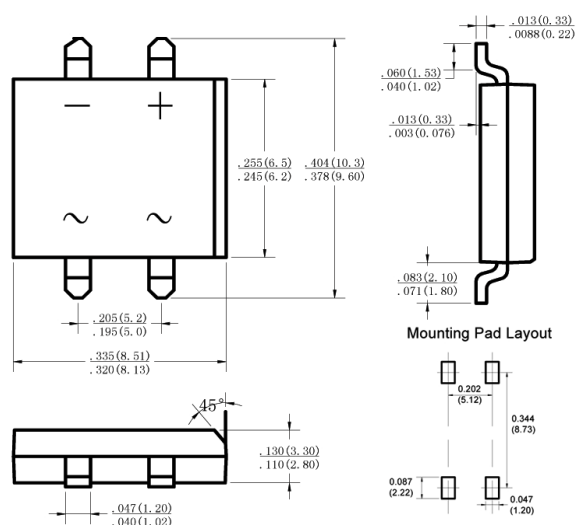
#### MECHANICAL DATA

- Case: Molded plastic, DBS
- 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.  
For capacitive load derate current by 20%

#### DBS



Dimensions in inches and (millimeters)

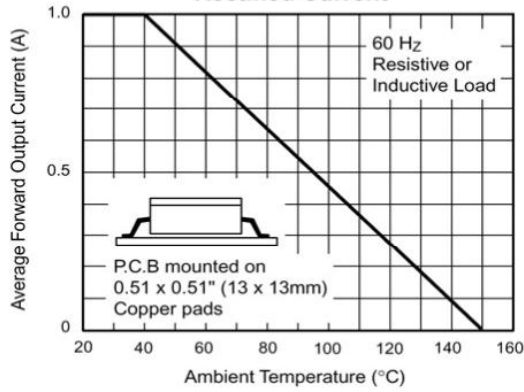
PARAMETER	SYMBOL	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	UNIT	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current at $T_A=40^\circ\text{C}$ (Note 2)	$I_{(AV)}$	1.0							Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							Amps	
Maximum Forward Voltage at 1.0A DC and 25°C	$V_F$	1.1							Volts	
Maximum Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A = 25^\circ\text{C}$	5.0							uA
		$T_A = 125^\circ\text{C}$	500							
Typical Junction Capacitance (Note 1)	$C_J$	25							pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	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 MHz and applied reverse voltage of 4.0 VDC.

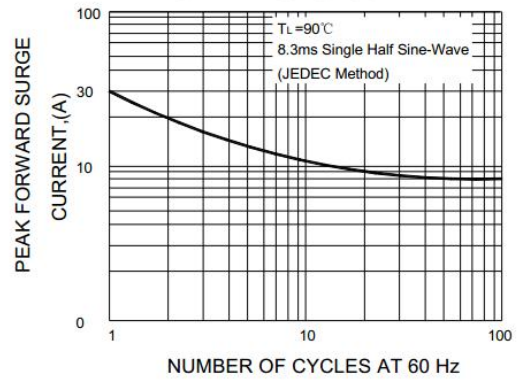
2- Units mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads

## RATINGS AND CHARACTERISTIC CURVES

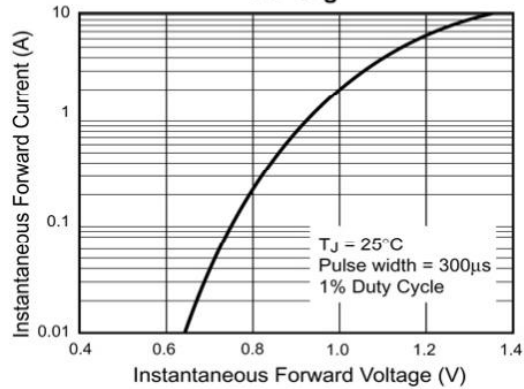
**Fig. 1 - Derating Curve Output Rectified Current**



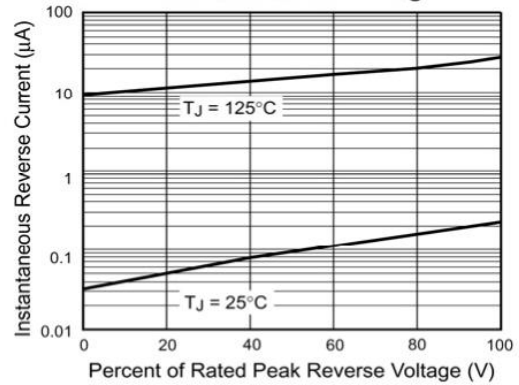
**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



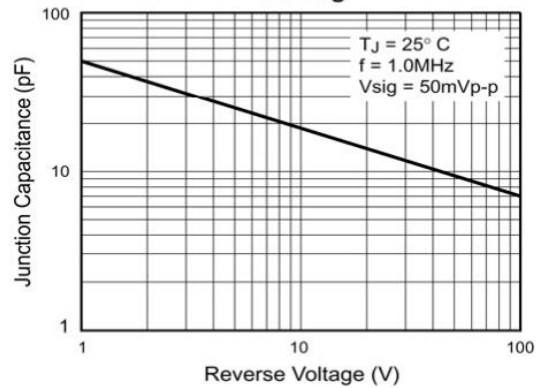
**Fig. 3 - Typical Forward Characteristics Per Leg**



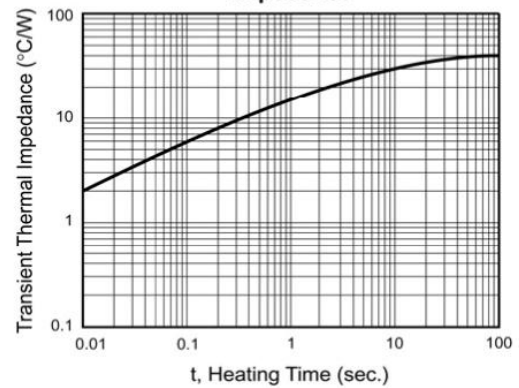
**Fig. 4 - Typical Reverse Leakage Characteristics Per Leg**



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



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



Note: Specifications are subject to change without notice.