

# Kingtronics®

## DB101S THRU DB107S

### SINGLE-PHASE GLASS PASSIVATED SILICON SURFACE MOUNT BRIDGE RECTIFIER REVERSE VOLTAGE 50 to 1000 Volts    FORWARD CURRENT 1.0 Ampere

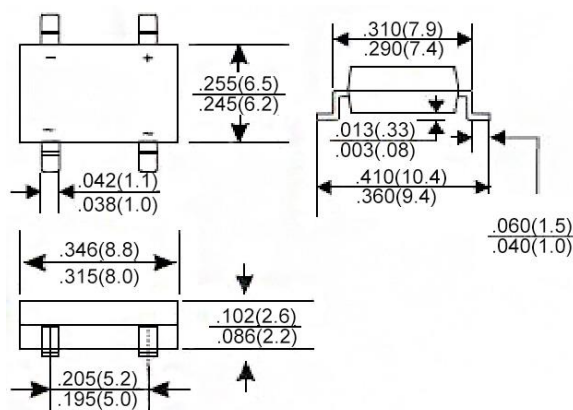
#### FEATURES

- 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, DB-S
- 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

#### DBS



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

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	$T_A = 25^\circ\text{C}$	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.

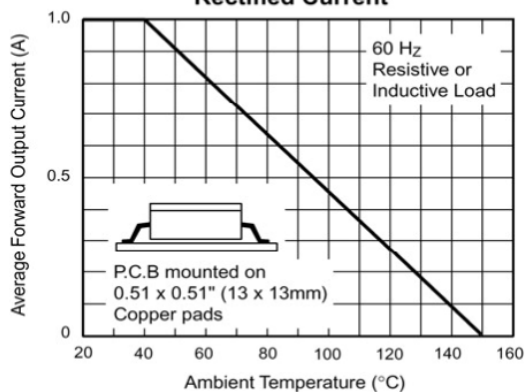
2- Units mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads

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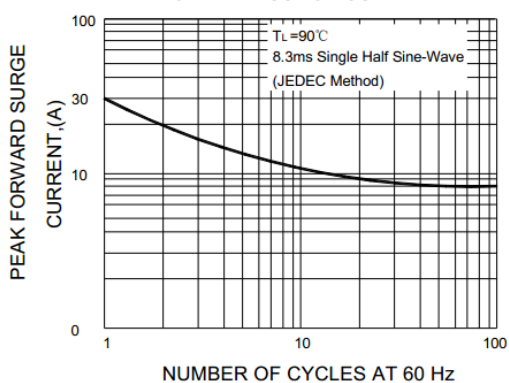
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## RATINGS AND CHARACTERISTIC CURVES

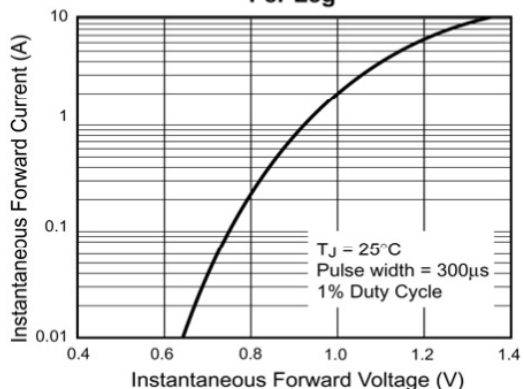
**Fig. 1 - Derating Curve Output Rectified Current**



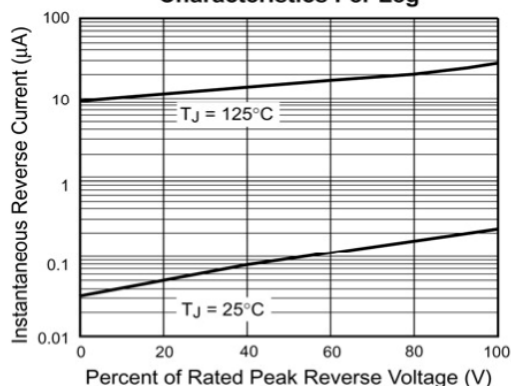
**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



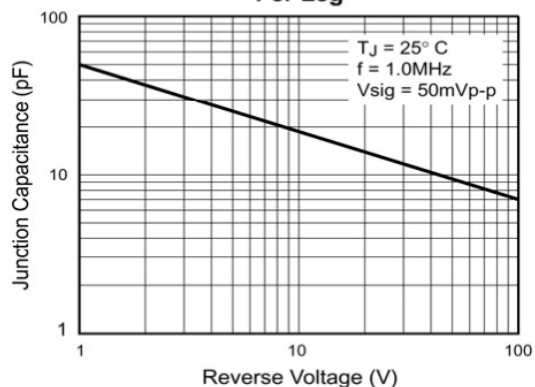
**Fig. 3 - Typical Forward Characteristics Per Leg**



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



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



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

