DB101S THRU DB107S

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

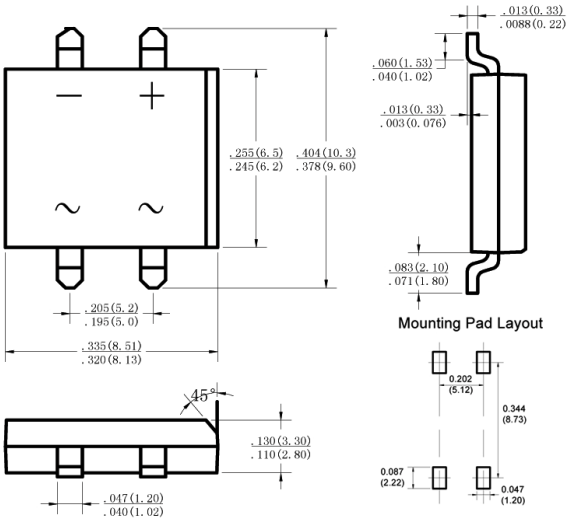
FEATURES

- ◆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-O rate flame retardant
- ◆Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
- ◆Mounting position: Any
- ◆Weight: 0.02ounce, 0.4gram

DBS



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

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℃ (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℃		V_F	1.1							Volts
Maximum Reverse Current at Rated DC Blocking Voltage	T_A = 25℃	I_R	5.0							uA
	T_A = 125℃		500							
Typical Junction Capacitance (Note 1)		C_J	25							pF
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	40							℃/W
Typical Thermal Resistance (Note 2)		$R_{\theta JL}$	15							℃/W
Operating and Storage Temperature Range		T_J,T_{stg}	-55 to +150							℃

Note: 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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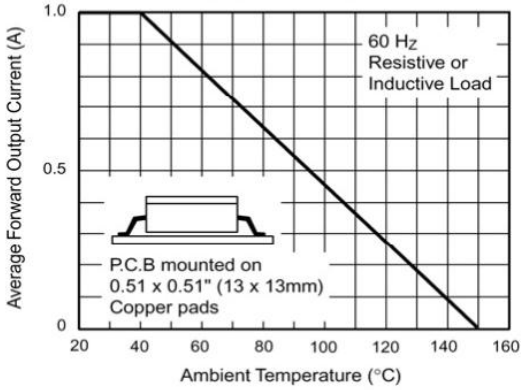
RATING AND CHARACTERISTIC CURVES DB101S THRU DB107S

Fig. 1 - Derating Curve Output Rectified Current



F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

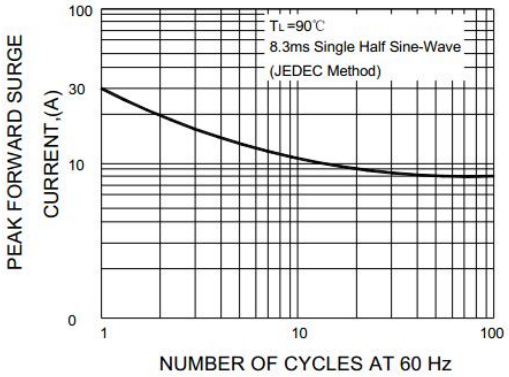


Fig. 3 - Typical Forward Characteristics Per Leg

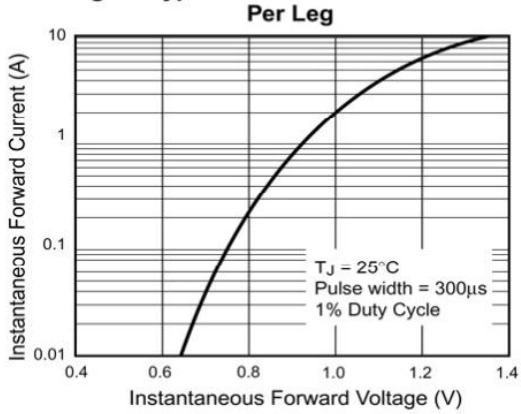


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

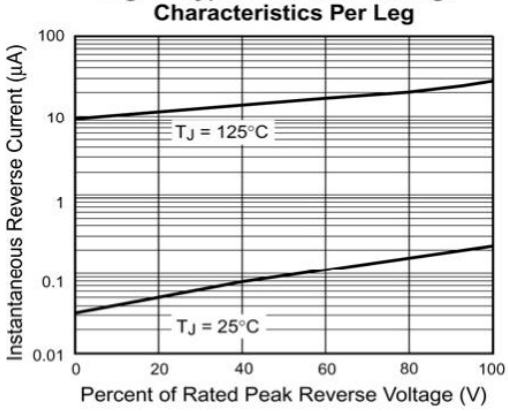


Fig. 5 - Typical Junction Capacitance Per Leg

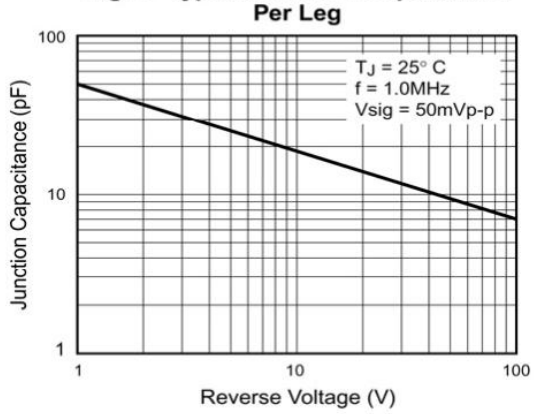
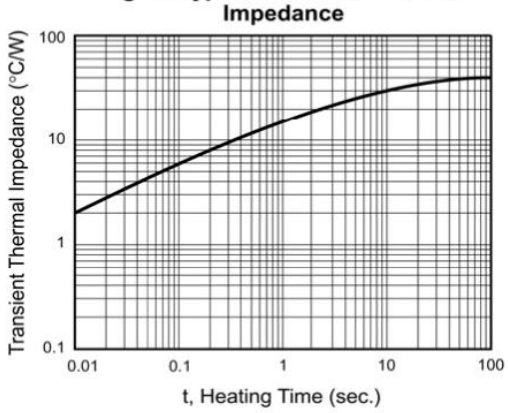


Fig. 6 - Typical Transient Thermal Impedance



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.