

DB101S Thru DB107S

Miniature Glass Passivated Single-Phase Bridge Rectifiers
 Reverse Voltage 50 and 1000V Forward Current 1.0A

Features

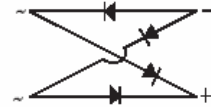
- Ideal for automated placement
- Applicable for automotive insertion
- High surge current capability
- Solder Dip 260°C, 40 seconds



Package: DFS

Mechanical Data

- Case: DFS
- Epoxy meets UL-94V-0 Flammability rating
- Terminals: Matte tin plated (E3 Suffix) leads, solderable per J-STD-002B and JESD22-B102D
- Polarity: As marked on body



Schematic Diagram

Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise noted)

Parameter	Symbol	DB10 1S	DB10 2S	DB10 3S	DB10 4S	DB10 5S	DB10 6S	DB10 7S	Unit
Maximum Repetitive 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 Output Rectified Current at T _A =40°C	I _{F(AV)}	1							A
Peak Forward Surge Current Single Sinewave Superimposed on Rated Load	I _{FSM}	30							A
Rating for Fusig (t<8.3ms)	I ² t	3.7							A ² sec
Maximum Instantaneous Forward Voltage Drop Per Leg @1.0A	V _F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Leg	I _R	5							μA
		500							
Typical Junction capacitance per Element at 4.0V, 1MHz	C _J	25							pF
Typical Thermal Resistance per Leg (Note 1)	R _{θJA}	40							°C/W
	R _{θJL}	15							
Operating Junction Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

Notes: 1. Device mounted P.C.B with 0.47x0.47"(12mmx12mm) Copper Pads.

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Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

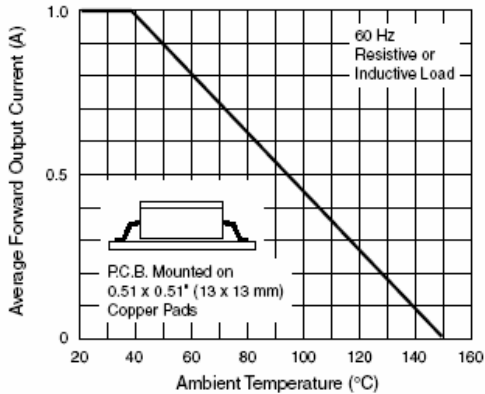


Figure 1. Derating Curve Output Rectified Current

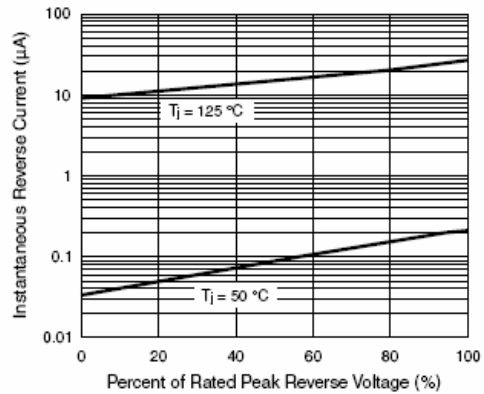


Figure 2. Typical Reverse Leakage Characteristics Per Diode

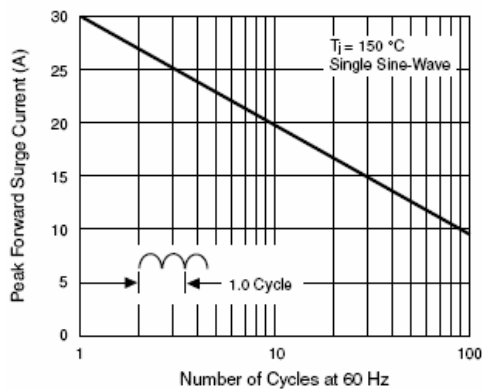


Figure 3. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

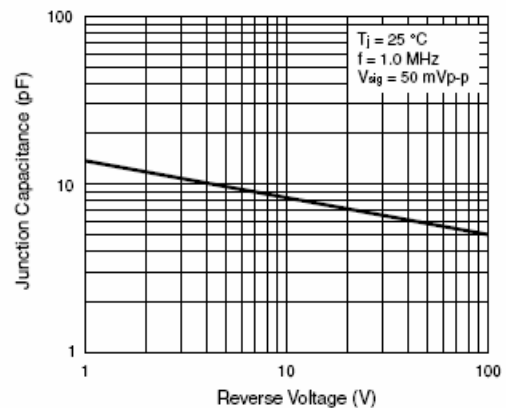


Figure 4. Typical Junction Capacitance Per Diode

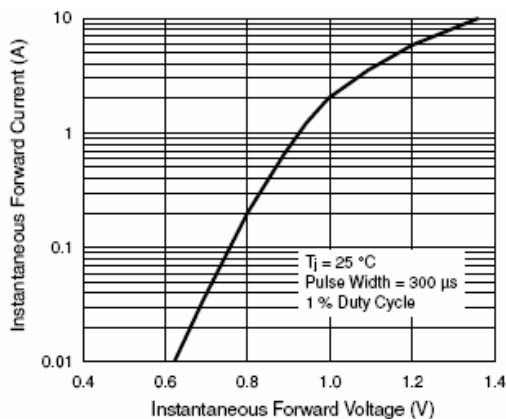


Figure 5. Typical Forward Characteristics Per Diode

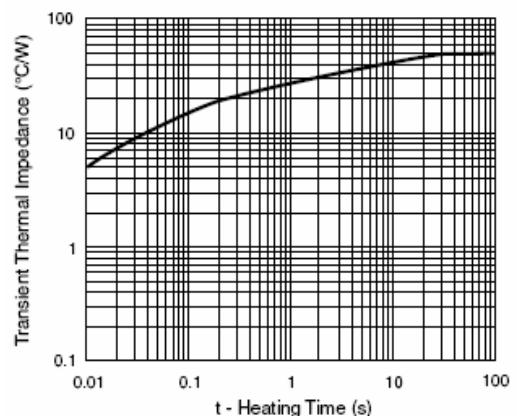
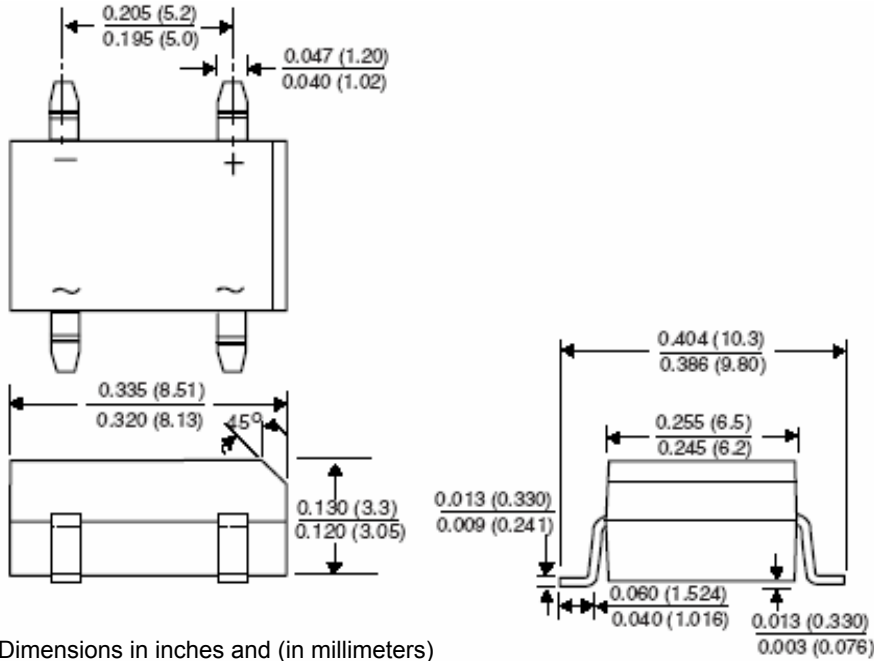


Figure 6. Typical Transient Thermal Impedance

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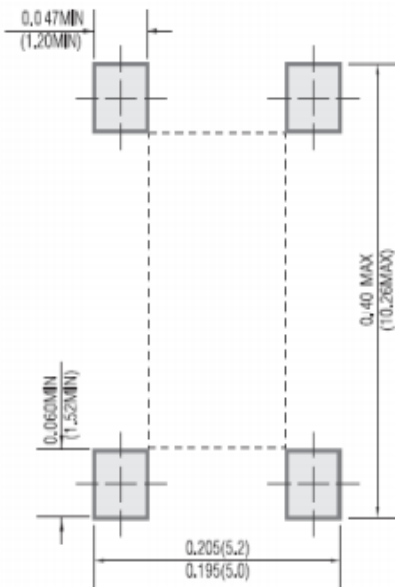
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Package Outline Dimensions (DFS)



Dimensions in inches and (in millimeters)

Recommended Pad Layout



Dimensions in inches and (in millimeters)