

DB151S THRU DB157S

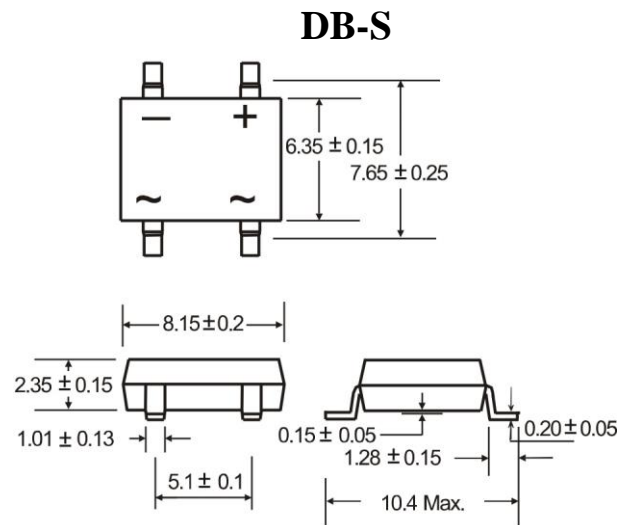
SINGLE-PHASE GLASS PASSIVATED SILICON SURFACE MOUNT BRIDGE RECTIFIER
REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 1.5 Ampere

FEATURES

- ◆ Glass passivated chip junction.
- ◆ High surge overload rating of 50 Amperes peak.
- ◆ Ideal for printed circuit board.
- ◆ High temperature soldering guaranteed: 260 °C for 10 seconds.

Mechanical Data

- ◆ Case: Molded plastic, DB-S.
- ◆ 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.



Dimensions in millimeters (1mm=0.0394")

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

PARAMETER	SYMBOL	DB151S	DB152S	DB153S	DB154S	DB155S	DB156S	DB157S	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}	100	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_A=40^\circ\text{C}$ (Note 2)	$I_{(AV)}$	1.5							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							A
Maximum forward Voltage at 1.5A 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							μA
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

Note: 1. Measured at 1.0MHz and applied reversed 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 DB151S THRU DB157S

Fig. 1 - Derating Curve Output Rectified Current

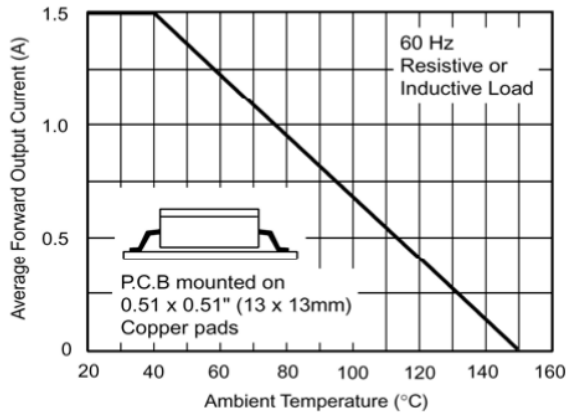


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

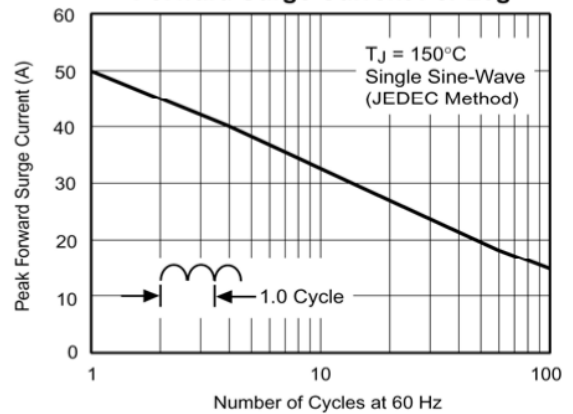


Fig. 3 - Typical Forward Characteristics Per Leg

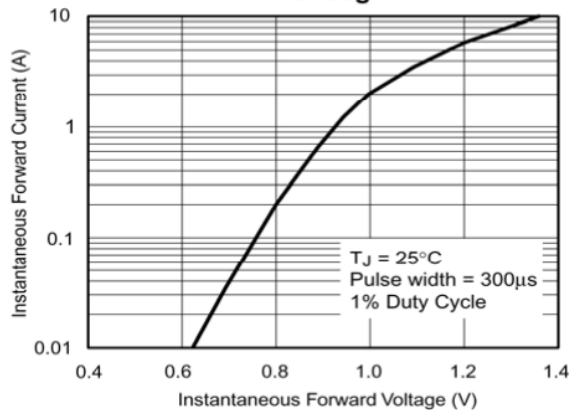


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

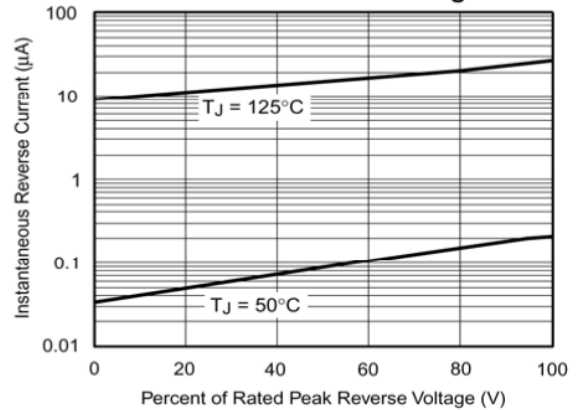


Fig. 5 - Typical Junction Capacitance Per Leg

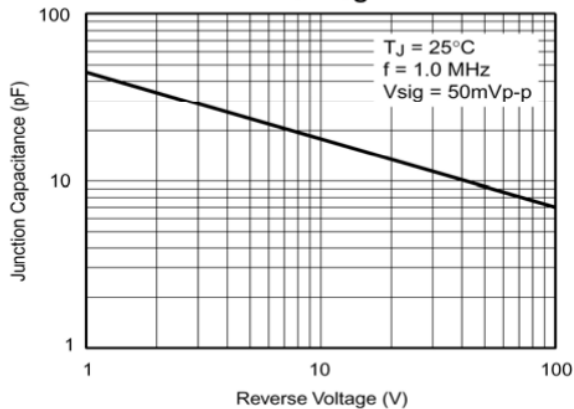
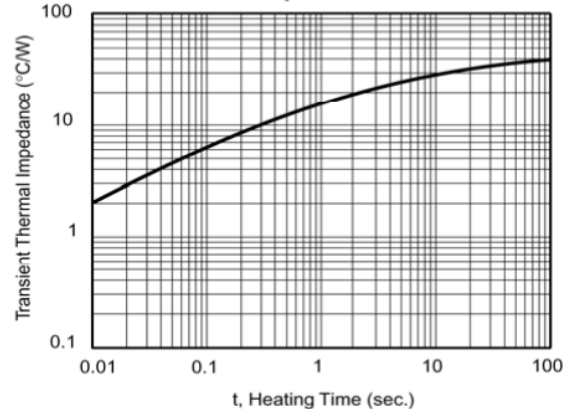


Fig. 6 - Typical Transient Thermal Impedance



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