DB10XS SERIES

SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

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DB101S THRU DB107S

SINGLE-PHASE GLASS PASSIVATED SILICON SURFACE MOUNT BRIDGE RECTIFIER

REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **1.0 AMPERE**

FEATURES

· Glass passivated chip junction

· Low forward voltage drop

· 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

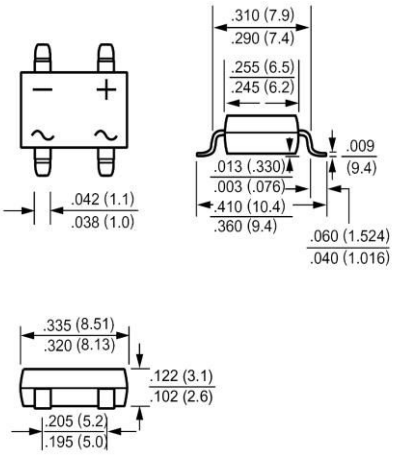
Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

Weight: 0.02ounce, 0.4gram

DB-S



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60HZ, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	*DB101S*	*DB102S*	*DB103S*	*DB104S*	*DB105S*	*DB106S*	*DB107S*	Units
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							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50							**Amp**
Maximum Forward Voltage at 1.0A DC and 25℃	V_F	1.1							**Volts**
Maximum Reverse Current at T_A=25℃	I_R	5.0							**uAmp**
at Rated DC Blocking Voltage 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，Tstg	-55 to +150							℃

NOTES:

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

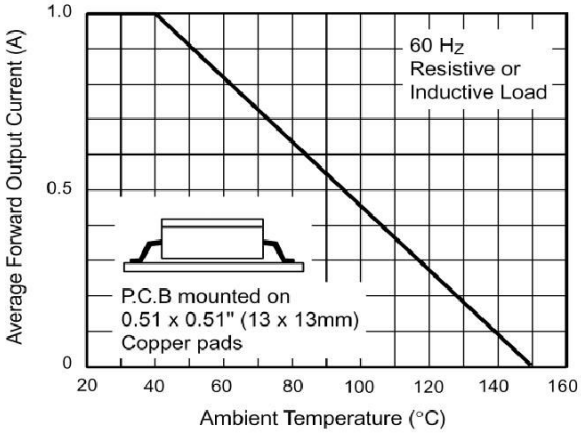


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

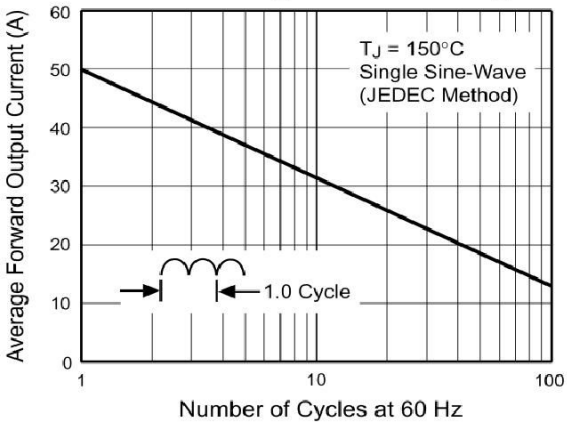


Fig. 3 - Typical Forward Characteristics Per Leg

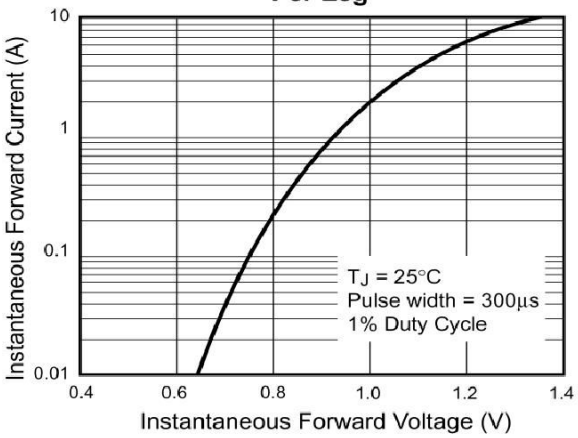


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

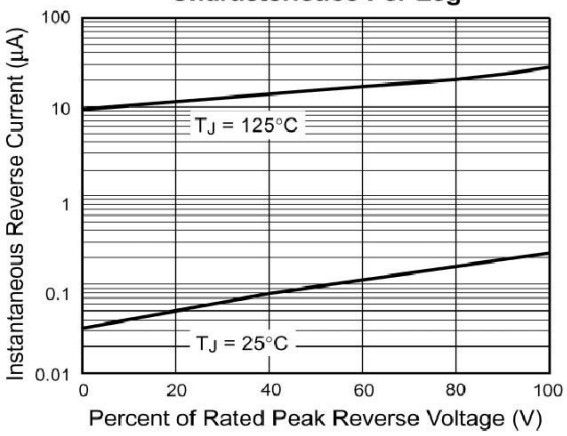


Fig. 5 - Typical Junction Capacitance Per Leg

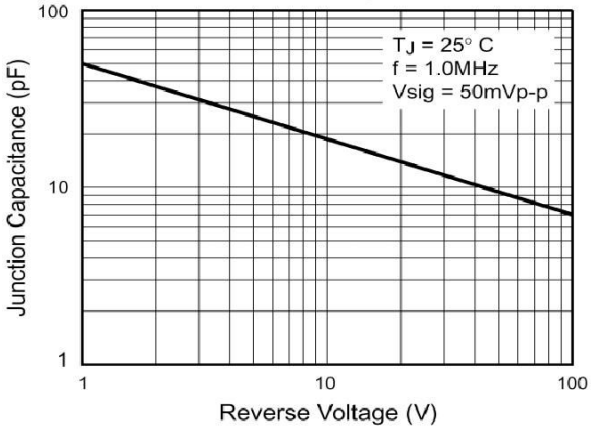
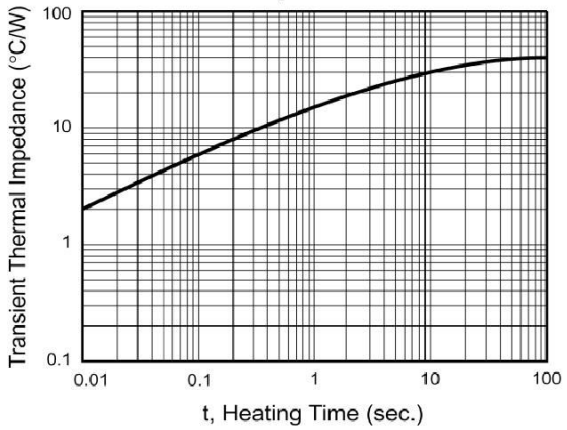



Fig. 6 - Typical Transient Thermal Impedance