Kingtronics®

DB101 THRU DB107

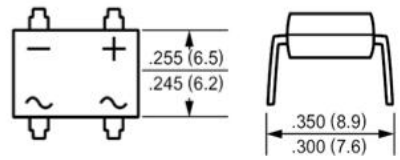
SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts **FORWARD CURRENT** 1.0 Ampere

FEATURES

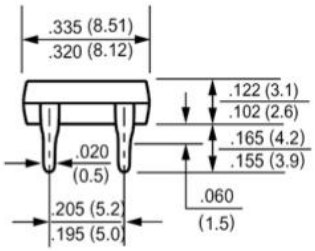
Plastic material has Underwriters Laboratory Flammability Classification 94V-0.
High surge overload rating of 50 Amperes peak.
Ideal for printed circuit board.
Glass passivated chip junction.

DB



MECHANICAL DATA

Case: Molded plastic, DB.
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.



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%

Dimensions in inches and (millimeters)

PARAMETER	SYMBOL	DB101	DB102	DB103	DB104	DB105	DB106	DB107	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}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_A=40℃	$I_{(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum forward Voltage at 1.0A DC and 25℃	V_F	1.1							V
Maximum DC Reverse Current at T_A=25℃ at Rated DC Blocking voltage T_A=125℃	I_R	5.0 500							uA
Typical Junction Capacitance (Note 1)	C_J	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	40							℃/W
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	15							℃/W
Operating and Storage Temperature Range	T_J , T_{STG}	-55 to +150							℃

1- Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2- Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 x 0.5" (13 x 13mm) copper pads.

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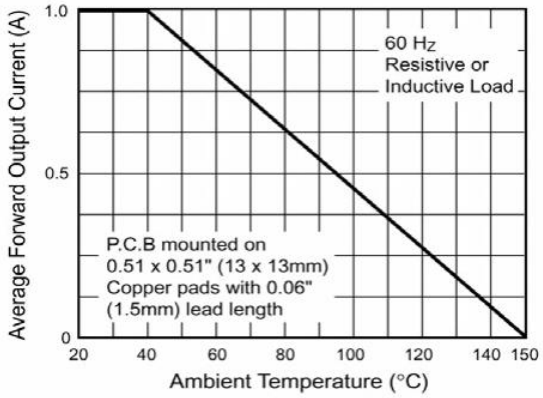
RATINGS AND CHARACTERISTIC CURVES

Fig. 1 - Derating Curve Output Rectified Current



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

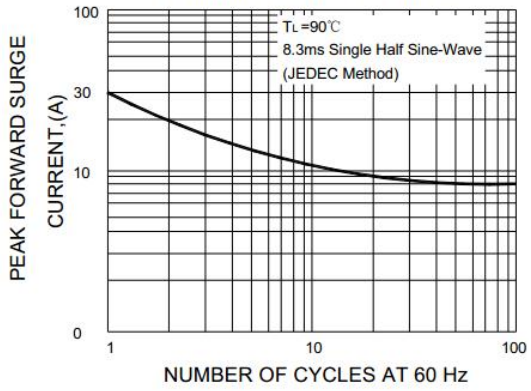


Fig. 3 - Typical Forward Characteristics Per Leg

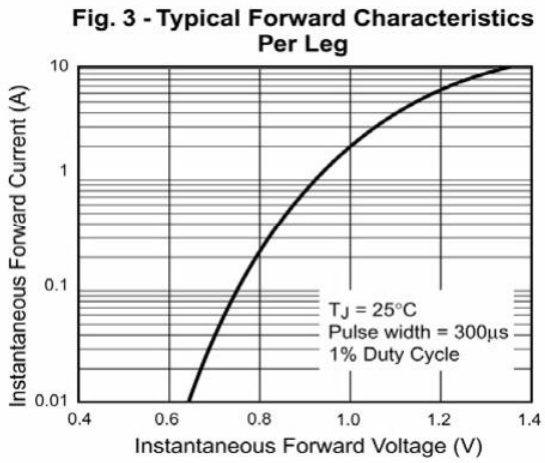


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

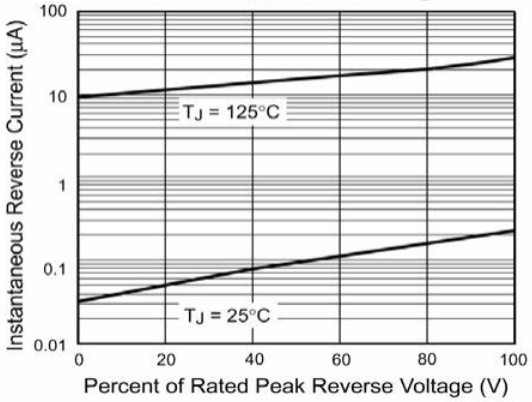


Fig. 5 - Typical Junction Capacitance Per Leg

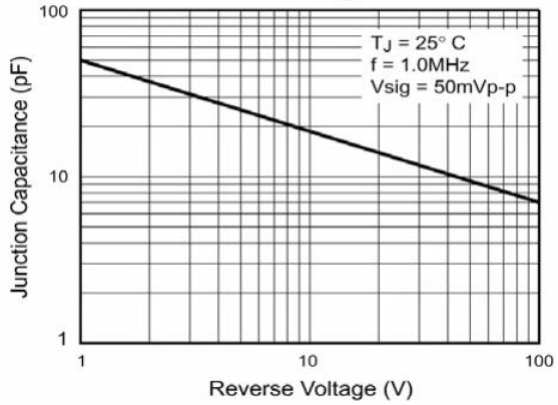
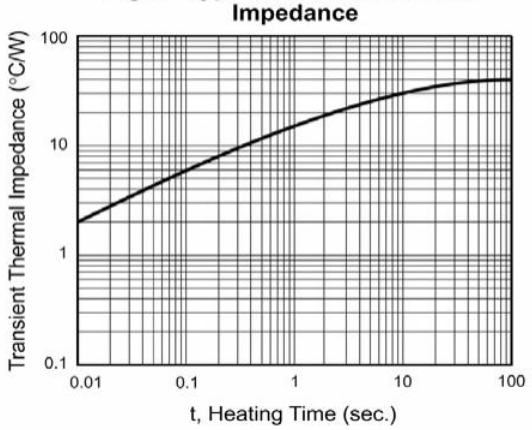


Fig. 6 - Typical Transient Thermal Impedance



Note: Specifications are subject to change without notice.