RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

BDB101
THRU
BDB107

SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER

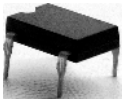
VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

FEATURES

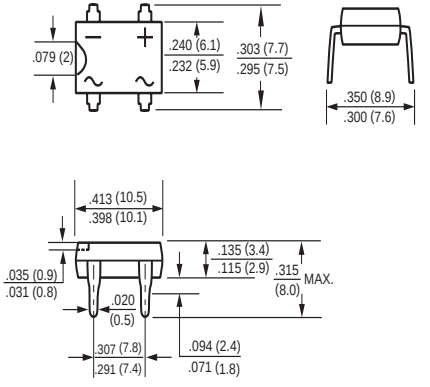
* Good for automation insertion
* Surge overload rating - 40 amperes peak
* Ideal for printed circuit board
* Reliable low cost construction utilizing molded
* Glass passivated device
* Polarity symbols molded on body
* Mounting position: Any
* Weight: 1.0 gram

FEATURES

* Epoxy : UL flammability classification 94V-0
* UL listed under the recognized component directory, file #E94233.



BDB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	BDB101	BDB102	BDB103	BDB104	BDB105	BDB106	BDB107	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input 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 Output Current at T_A = 40°C	I_O	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	40							Amps
Typical Thermal Resistance from junction to case	$R\theta_{JL}$	10							°C/W
Typical Thermal Resistance from junction to ambient	$R\theta_{JA}$	65							°C/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to + 150							°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	BDB101	BDB102	BDB103	BDB104	BDB105	BDB106	BDB107	UNITS
Maximum Forward Voltage Drop per Bridge Element at 1.0A DC		V_F	1.1							Volts
Maximum Forward Voltage Drop per Bridge	@T_A = 25°C	I_R	5.0							uAmps
DC Blocking Voltage per element	@T_A = 125°C		0.5							mAmps

Note: “Fully ROHS compliant”, “100% Sn plating (Pb-free)”.

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REV: A

RATING AND CHARACTERISTIC CURVES (BDB101 THRU BDB107)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

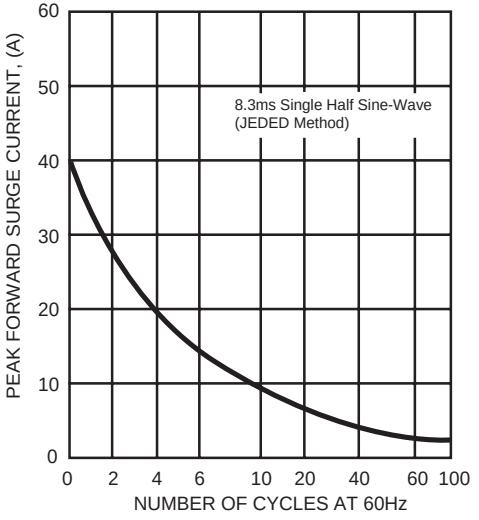

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

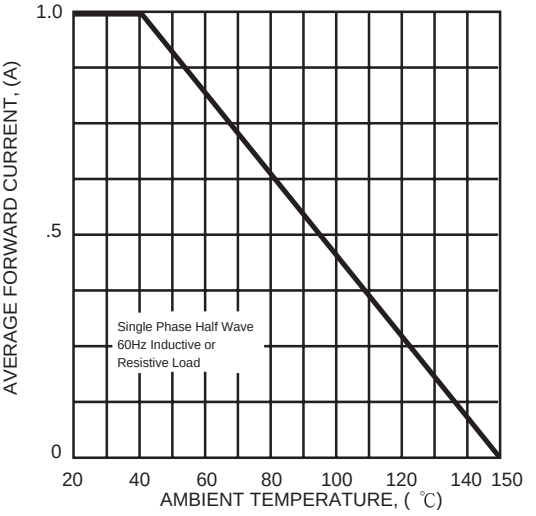

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

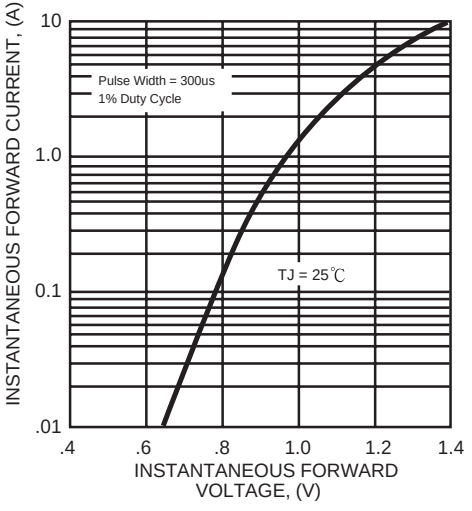

FIG. 4 - TYPICAL REVERSE CHARACTERISTICS