EDB101 THRU EDB106

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HORNBY ELECTRONIC

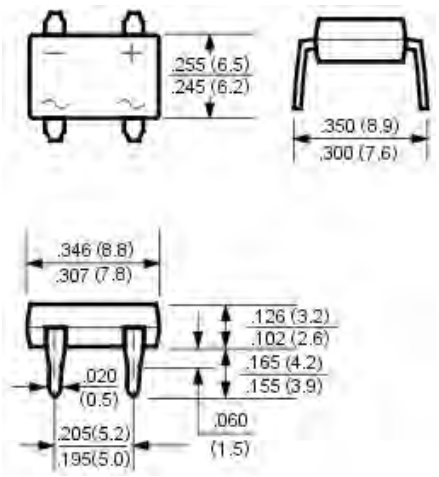
SINGLE-PHASE GLASS PASSIVATED SUPER FAST SILICON BRIDGE RECTIFIER

REVERSE VOLTAGE: **50 to 400 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
· Superfast recovery times for high efficiency
· Glass passivated chip junction

DB-1



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic, DB-1
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, 60H_Z, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	*EDB101*	*EDB102*	*EDB103*	*EDB104*	*EDB105*	*EDB106*	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	**Volts**
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	**Volts**
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	**Volts**
Maximum Average Forward Rectified Current at T_A=40℃	$I_{(AV)}$	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	1.05				1.25		**Volts**
Maximum Reverse Current at T_A=25℃ at Rated DC Blocking Voltage T_A=125℃	I_R	5.0 1000						**uAmp**
Typical Junction Capacitance (Note 1)	C_J	15						**pF**
Maximum Reverse Recovery Time (Note 3)	T_{RR}	50						**nS**
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	38						**℃/W**
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	12						**℃/W**
Operating and Storage Temperature Range	T_J，Tstg	-55 to +150						**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

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

3- Reverse Recovery Test Conditions：I_F=.5A，I_R=1A，I_{RR}=.25A.

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RATINGS AND CHARACTERISTIC CURVES

Fig. 1 - Derating Curve Output Rectified Current

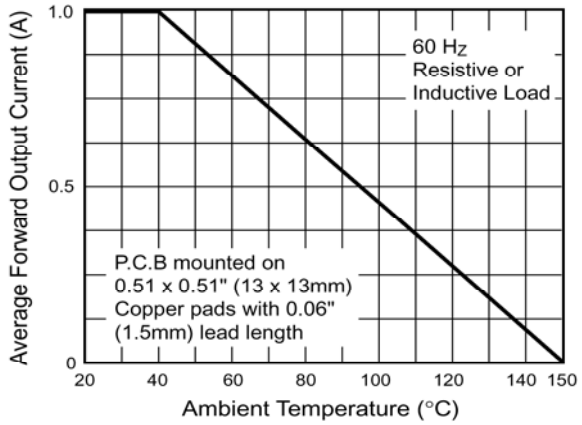

Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

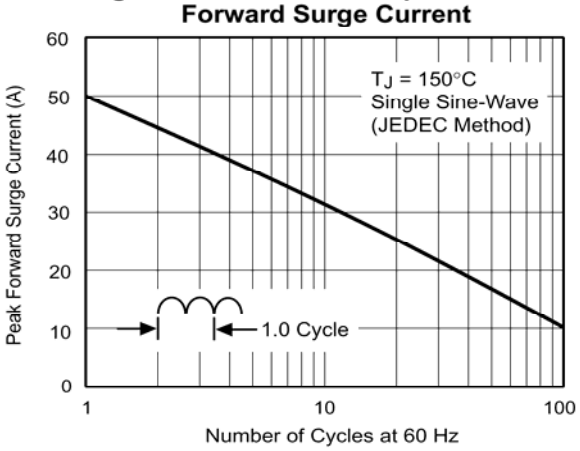

Fig. 3 - Typical Forward Characteristics Per Leg

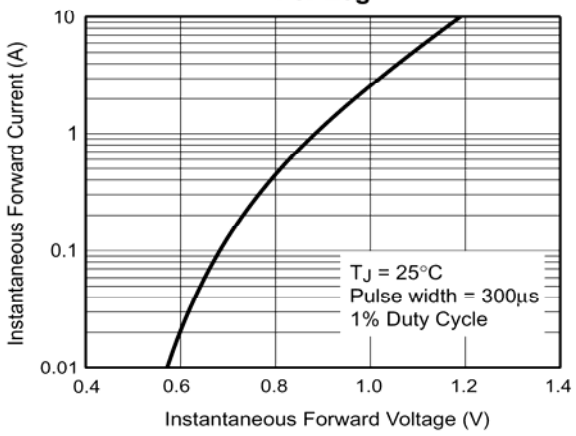

Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

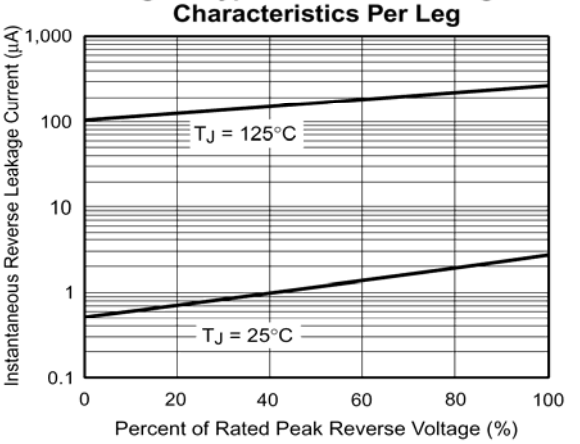

Fig. 5 - Typical Junction Capacitance Per Leg