

# ***EDB10X SERIES***

**SINGLE-PHASE SUPER FAST SILICON BRIDGE RECTIFIER**

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# EDB101 THRU EDB106



康比電子  
HORNBY ELECTRONIC

**SINGLE-PHASE GLASS PASSIVATED SUPER FAST SILICON BRIDGE RECTIFIER**

**REVERSE VOLTAGE: 50 to 400 VOLTS**

**FORWARD CURRENT: 1.0 AMPERE**

## FEATURES

- Glass passivated chip junction
- Superfast recovery times for high efficiency
- High surge overload rating of 50 Amperes peak
- Ideal for printed circuit board
- High temperature soldering guaranteed:  
260°C for 10 seconds

## MECHANICAL DATA

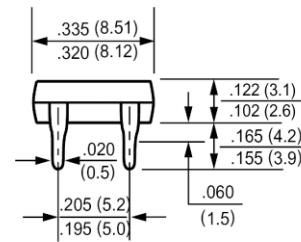
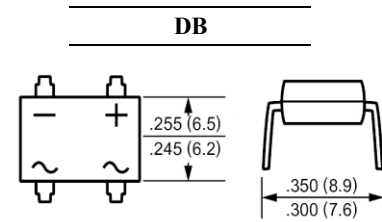
Case: Molded plastic, DB

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 inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, 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	$T_J, T_{stg}$	-55 to +150						

## NOTES:

1- Measured at 1 MHz 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:  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{RR}=0.25A$ .

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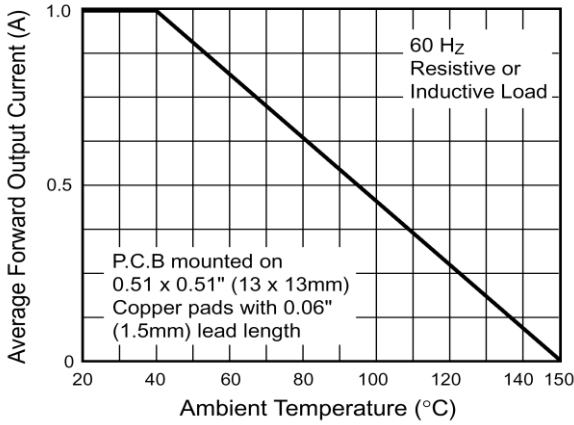
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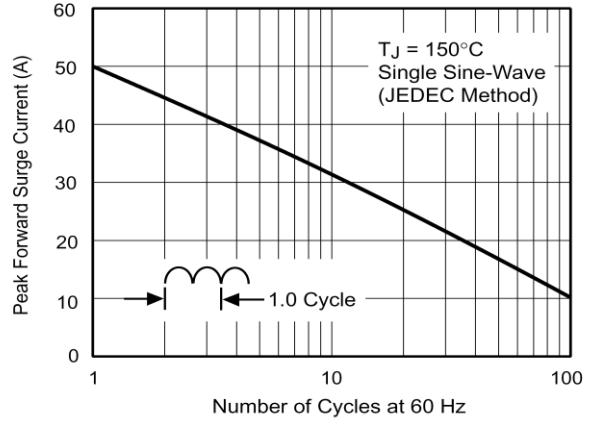
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## RATINGS AND CHARACTERISTIC CURVES

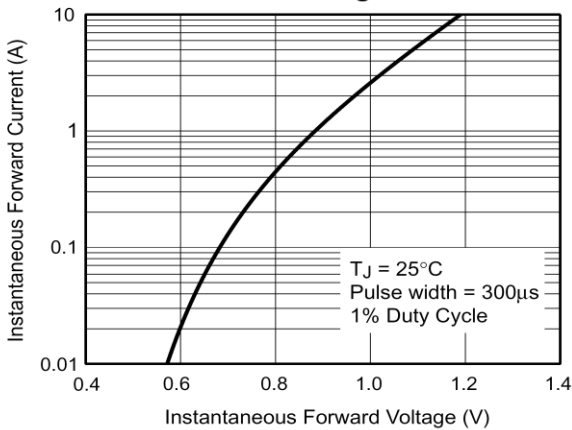
**Fig. 1 - Derating Curve Output Rectified Current**



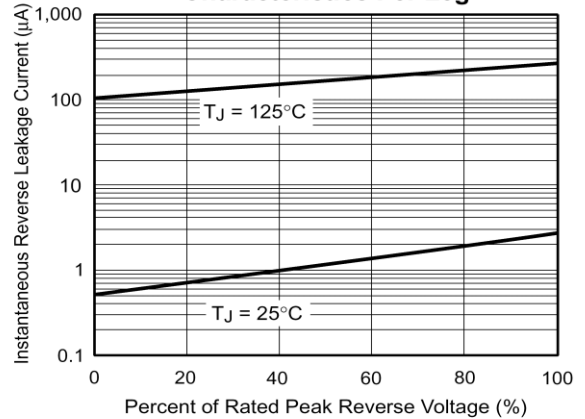
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 - Typical Forward Characteristics Per Leg**



**Fig. 4 - Typical Reverse Leakage Characteristics Per Leg**



**Fig. 5 - Typical Junction Capacitance Per Leg**

