

# ***EDB10XS SERIES***

***SUPER FAST SURFACE MOUNT SILICON BRIDGE RECTIFIER***

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# EDB101S THRU EDB106S

SINGLE-PHASE GLASS PASSIVATED SUPER FAST SURFACE MOUNT SILICON BRIDGE RECTIFIER



康比電子  
HORNY ELECTRONIC

**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

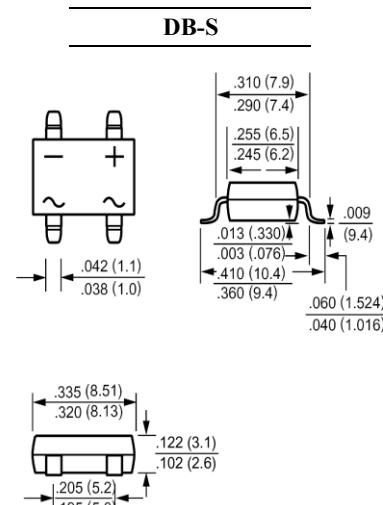
Case: Molded plastic, DB-S

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



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	EDB101S	EDB102S	EDB103S	EDB104S	EDB105S	EDB106S	Units
<b>Maximum Recurrent Peak Reverse Voltage</b>	V <sub>RRM</sub>	50	100	150	200	300	400	Volts
<b>Maximum RMS Voltage</b>	V <sub>RMS</sub>	35	70	105	140	210	280	Volts
<b>Maximum DC Blocking Voltage</b>	V <sub>DC</sub>	50	100	150	200	300	400	Volts
<b>Maximum Average Forward Rectified Current at T<sub>A</sub>=40°</b>	I <sub>(AV)</sub>					1.0		Amp
<b>Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)</b>	I <sub>FSM</sub>					50		Amp
<b>Maximum Forward Voltage at 1.0A DC and 25°</b>	V <sub>F</sub>			1.05		1.25		Volts
<b>Maximum Reverse Current at T<sub>A</sub>=25° at Rated DC Blocking Voltage T<sub>A</sub>=125°</b>	I <sub>R</sub>				5.0			uAmp
<b>Typical Junction Capacitance (Note 1)</b>	C <sub>J</sub>				1000	15		pF
<b>Maximum Reverse Recovery Time (Note 3)</b>	T <sub>RR</sub>					50		nS
<b>Typical Thermal Resistance (Note 2)</b>	R <sub>0JA</sub>					38		/W
<b>Typical Thermal Resistance (Note 2)</b>	R <sub>0JL</sub>					12		/W
<b>Operating and Storage Temperature Range</b>	T <sub>J</sub> , T <sub>Stg</sub>					-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<sub>F</sub>=.5A , I<sub>R</sub>=1A , I<sub>RR</sub>=.25A.

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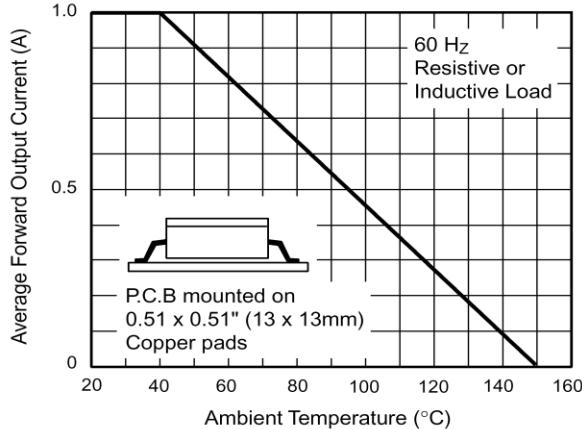
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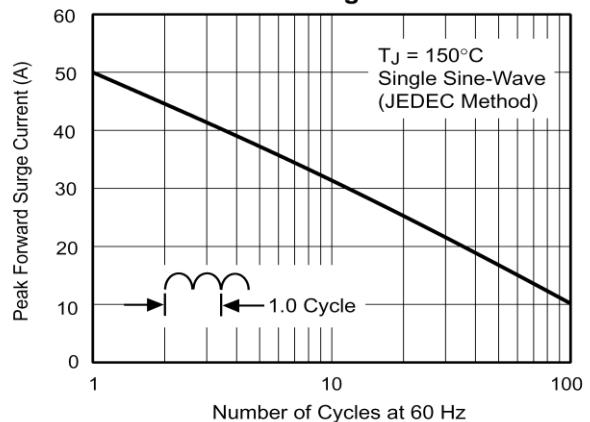
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## RATINGS AND CHARACTERISTIC CURVES

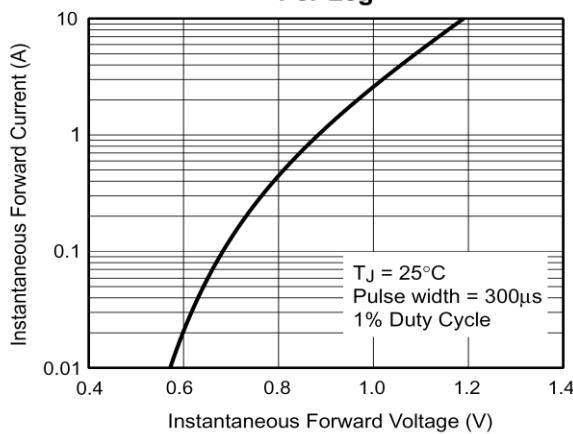
**Fig. 1 - Derating Curve Output Rectified Current**



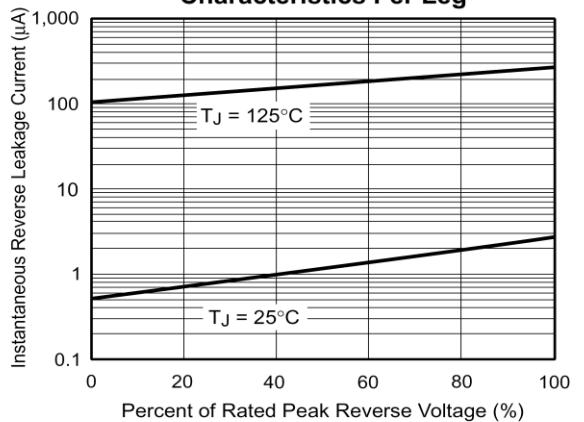
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



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



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



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

