

**GLASS PASSIVATED SUPER FAST  
SILICON SURFACE MOUNT BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 400 Volts CURRENT 1.0 Ampere

**FEATURES**

- \* Good for automatic insertion
- \* Surge overload rating - 30 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

**MECHANICAL DATA**

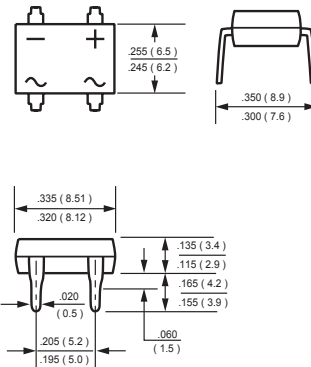
- \* UL listed the recognized component directory, file #94233
- \* Epoxy: Device has UL flammability classification 94V-O

**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%.



**DB-1**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

RATINGS	SYMBOL	EDB101	EDB102	EDB103	EDB104	EDB105	EDB106	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	Volts
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	Volts
Maximum Average Forward Output Current at T <sub>A</sub> = 55°C	I <sub>O</sub>	1.0						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30						Amps
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	38						°C/W
	R <sub>θJL</sub>	12						
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	15				10		pF
Operating and Storage Temperature Range	T <sub>J,TSTG</sub>	-55 to + 150						°C

**ELECTRICAL CHARACTERISTICS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

CHARACTERISTICS		SYMBOL	EDB101	EDB102	EDB103	EDB104	EDB105	EDB106	UNITS
Maximum Forward Voltage at 1.0A DC		V <sub>F</sub>	1.05				1.35	1.70	Volts
Maximum Reverse Current at Rated	@ T <sub>A</sub> = 25°C	I <sub>R</sub>	5.0						μAmps
DC Blocking Voltage per element	@ T <sub>A</sub> = 100°C		100						μAmps
Maximum Reverse Recovery Time (Note 1)		trr	50				nSec		

Note: 1. Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=-1.0\text{A}$ ,  $I_{RR}=-0.25\text{A}$ .  
2. Measured at 1MHz and applied reverse voltage of 4.0 volts.  
3. Thermal Resistance : Mounted on PCB.

2006-11  
REV:B

RATING AND CHARACTERISTICS CURVES ( EDB101 THRU EDB106 )

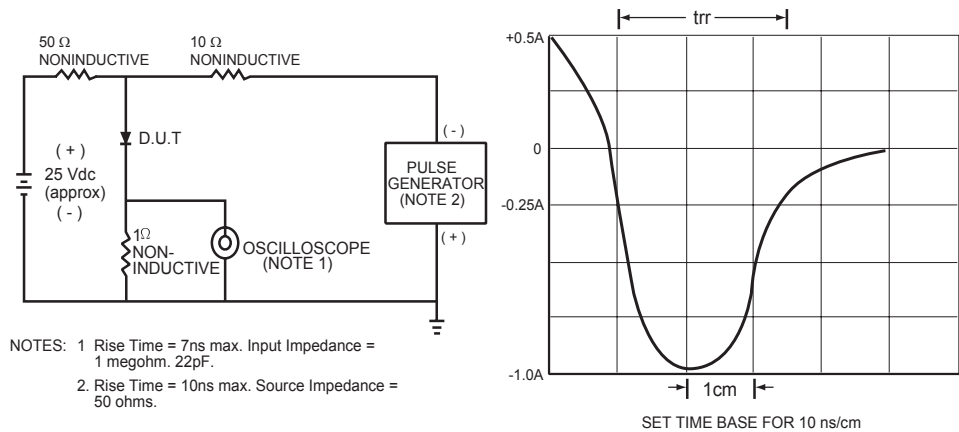


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

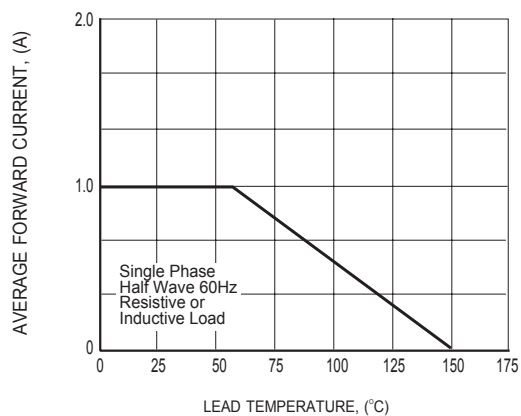


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

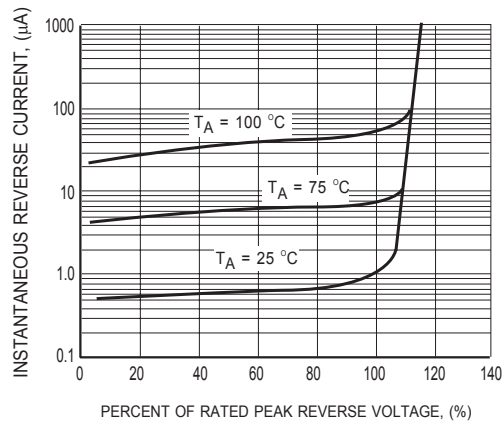


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES ( EDB101 THRU EDB106 )

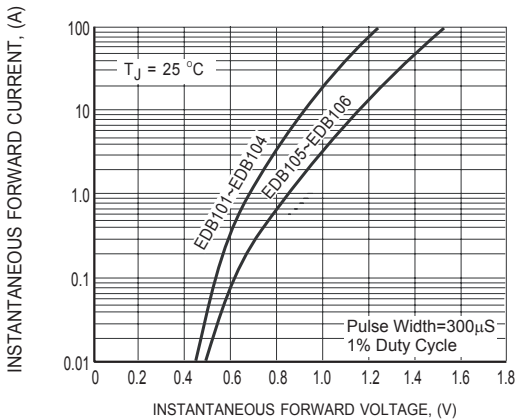


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

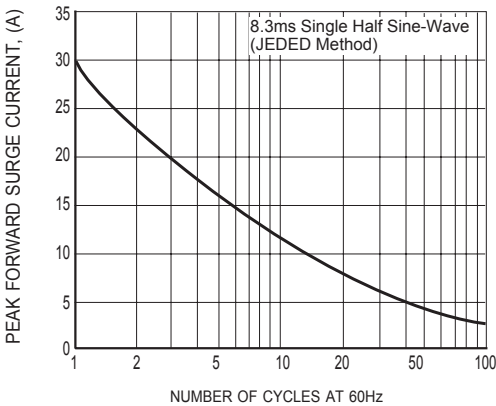


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

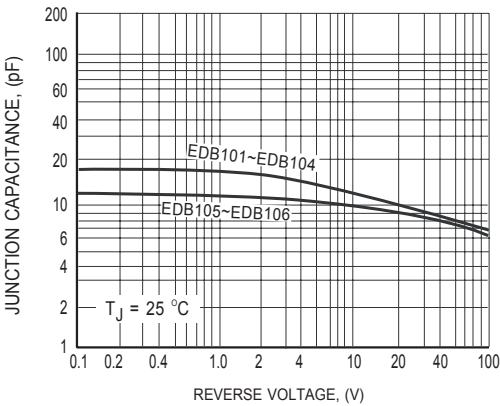


FIG.6 TYPICAL JUNCTION CAPACITANCE

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