

**GLASS PASSIVATED SUPER FAST  
SILICON SURFACE MOUNT BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 600 Volts CURRENT 1.0 Ampere

**FEATURES**

- \* 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

**MECHANICAL DATA**

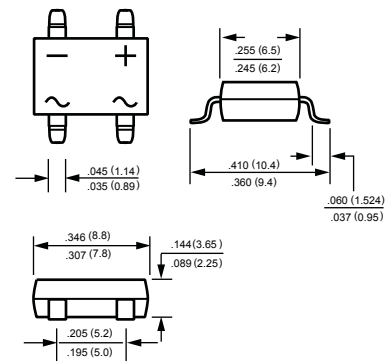
- \* Epoxy: Device has UL flammability classification 94V-O

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Resistive or inductive load.



DB-S



Dimensions in inches and (millimeters)

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

RATINGS	SYMBOL	EDB101S	EDB102S	EDB103S	EDB104S	EDB105S	EDB106S	EDB107S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	Volts
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	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 Current Square Time	I <sup>2</sup> T	3.7							A <sup>2</sup> S
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</sub> ,T <sub>STG</sub>	-55 to + 150							°C

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

CHARACTERISTICS		SYMBOL	EDB101S	EDB102S	EDB103S	EDB104S	EDB105S	EDB106S	EDB107S	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)		t <sub>rr</sub>	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.

2020-04/97  
REV:E

RATING AND CHARACTERISTICS CURVES ( EDB101S THRU EDB107S )

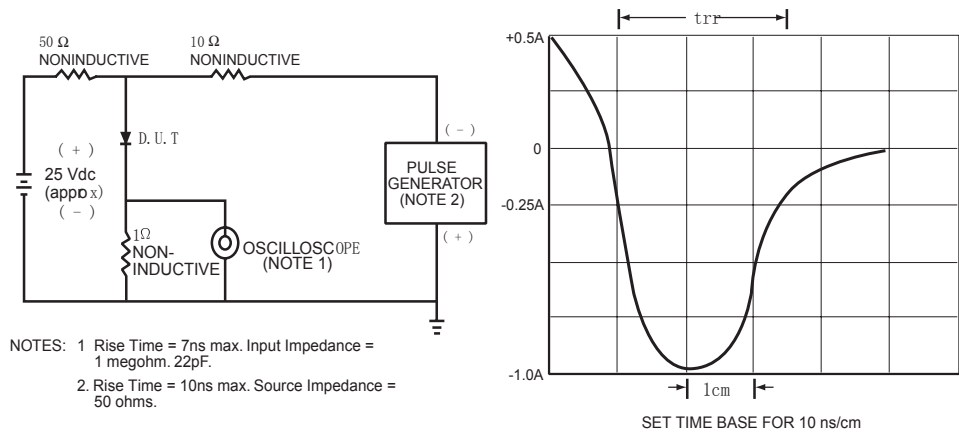


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

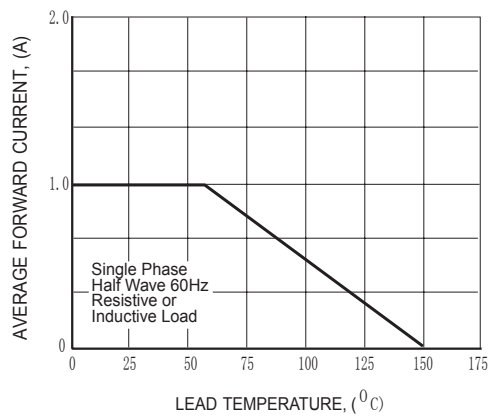


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

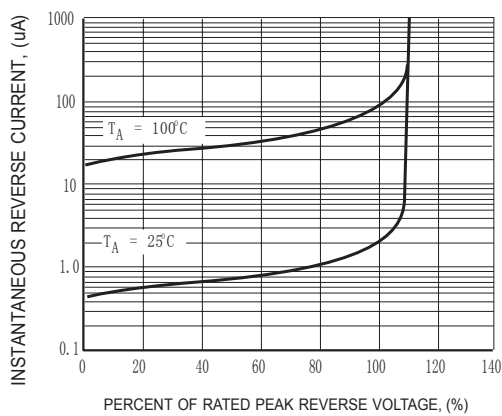


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES ( EDB101S THRU EDB107S )

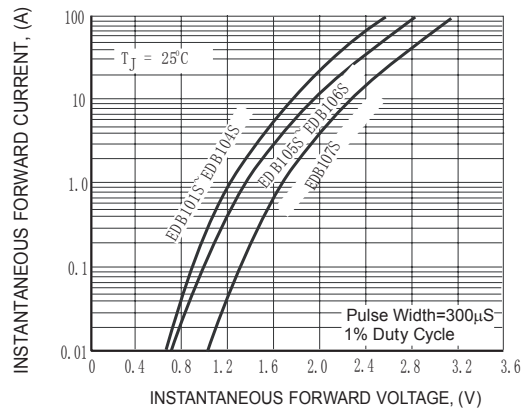


FIG. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

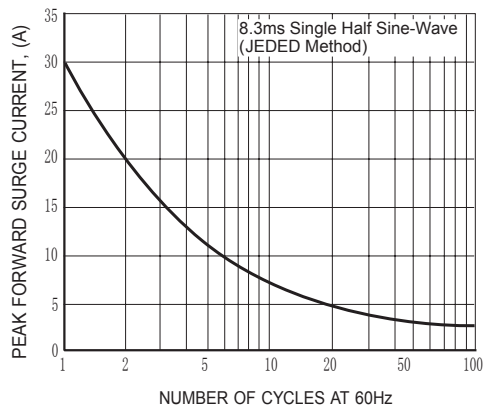


FIG. 5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

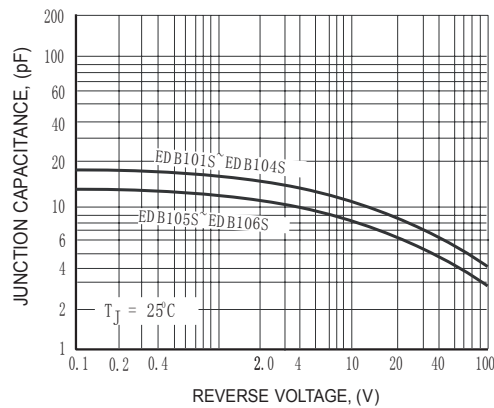


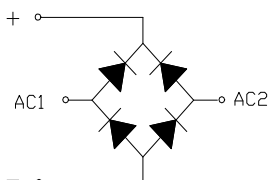
FIG. 6 TYPICAL JUNCTION CAPACITANCE



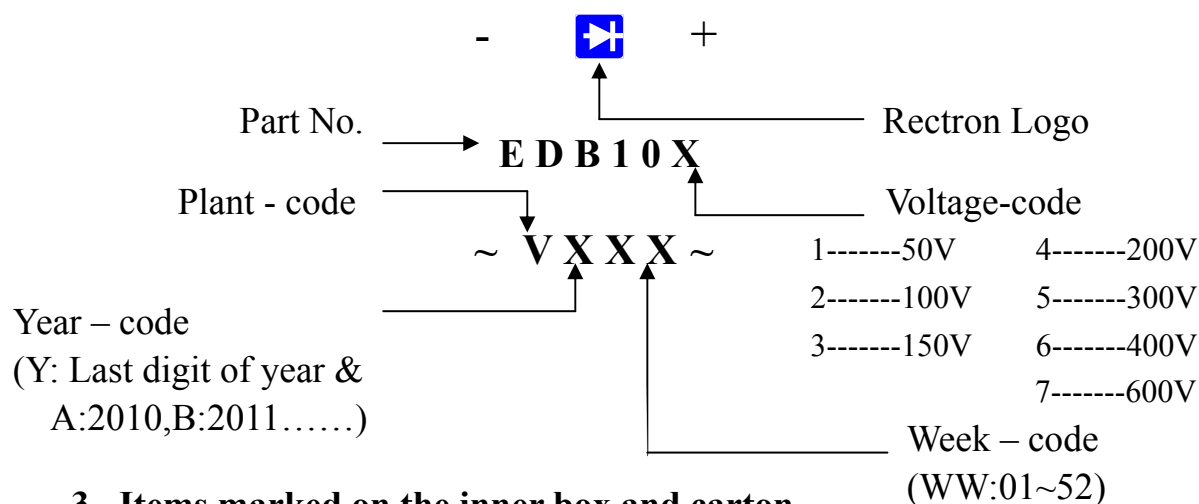
# RECTRON

## Attachment information about EDB10XS

### 1. Internal Circuit



### 2. Marking on the body



### 3. Items marked on the inner box and carton

#### 3.1 On the box (for -B)

**CUSTOMER**  
**TYPE**  
**LOT NO.**  
**QUANTITY**  
**Q.A.**  
**DATE**

#### 3.2 On the carton

**CUSTOMER**  
**TYPE**  
**QUANTITY**  
**LOT NO.**  
**REMARK**

## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
DB-S	-C	4,000	450*140*84	464*305*283	24,000	18.44

### REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DB-S	-T/W	1,000	1,000	9.5	52	330	360*355*360	8,000	9.8

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