

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

**FEATURES**

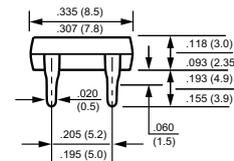
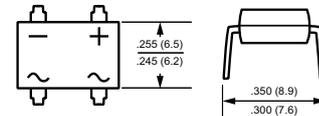
- \* Good for automatic insertion
- \* Surge overload rating - 30 amperes peak
- \* Ideal for printed circuit board
- \* Reliable low cost construction utilizing molded
- \* Glass passivated device
- \* Polarity symbols molded on body
- \* Mounting position: Any
- \* Weight: 1.0 gram

**MECHANICAL DATA**

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



DB-1



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

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

RATINGS	SYMBOL	EDB101	EDB102	EDB103	EDB104	EDB105	EDB106	EDB107	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	Volts
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	Volts
Maximum Average Forward Output Current at $T_A = 55^\circ\text{C}$	$I_O$	1.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							Amps
Typical Current Squared Time	$I^2t$	3.7							$\text{A}^2/\text{Sec}$
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	38							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	12							
Typical Junction Capacitance (Note 2)	$C_J$	15			10			$\text{pF}$	
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150							$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	EDB101	EDB102	EDB103	EDB104	EDB105	EDB106	EDB107	UNITS
Maximum Forward Voltage at 1.0A DC	$V_F$	1.05			1.35			1.70	Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@ $T_A = 25^\circ\text{C}$	5.0							$\mu\text{Amps}$
	@ $T_A = 100^\circ\text{C}$	100							$\mu\text{Amps}$
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	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.

2021-07  
REV:E

# RATING AND CHARACTERISTICS CURVES ( EDB101 THRU EDB107 )

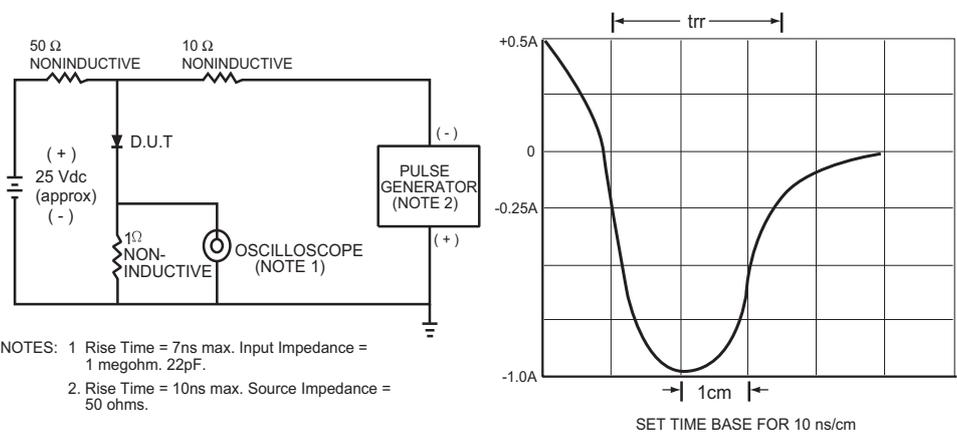


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

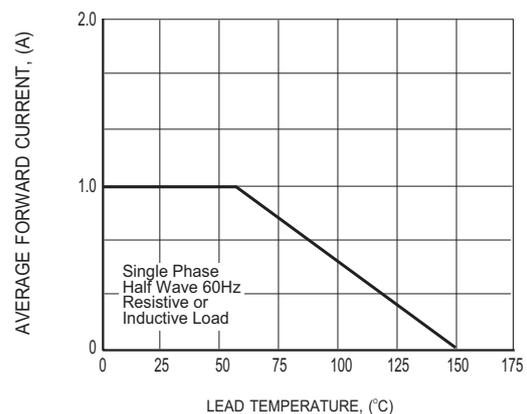


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

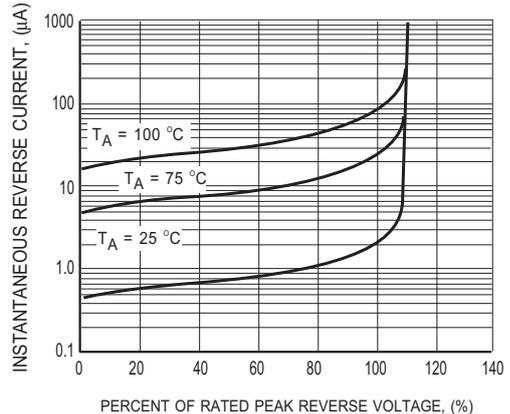


FIG.3 TYPICAL REVERSE CHARACTERISTICS

## RATING AND CHARACTERISTICS CURVES ( EDB101 THRU EDB107 )

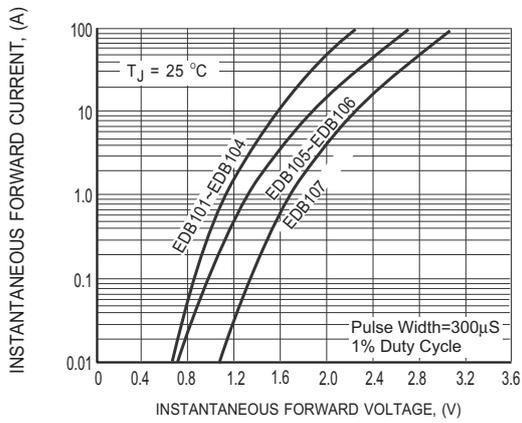


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

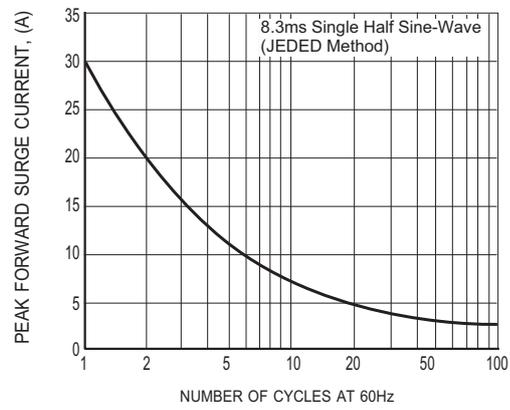


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

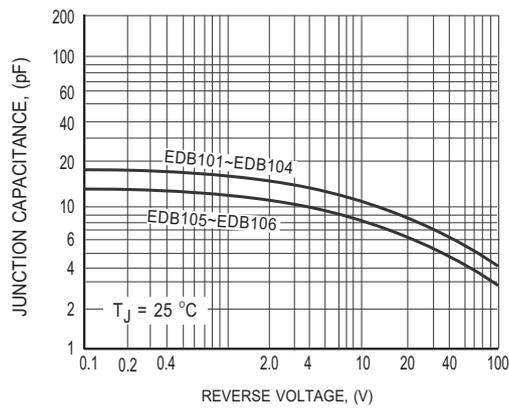
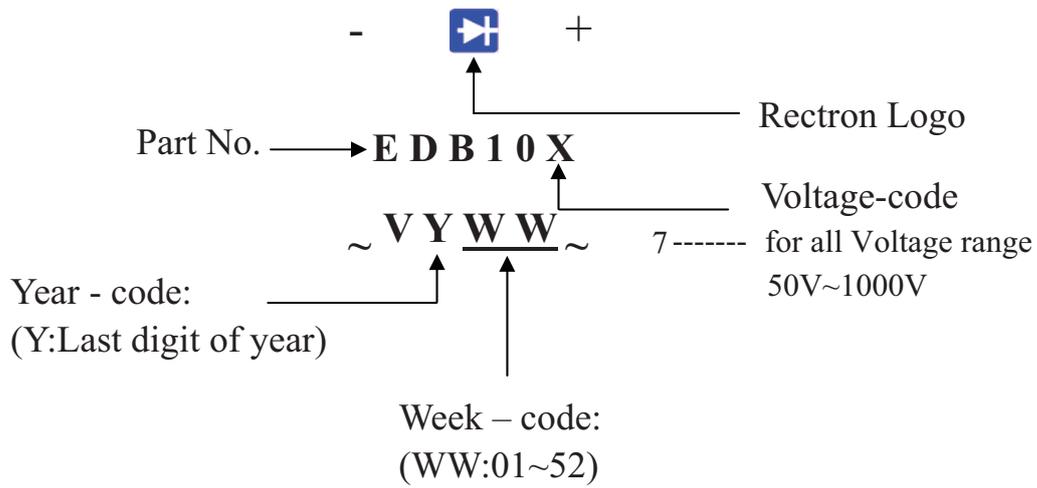


FIG.6 TYPICAL JUNCTION CAPACITANCE

## Marking Description



# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

## TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
DB-1	-C	2,500	440*130*65	460*290*150	10,000	6.80

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