

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

FEATURES

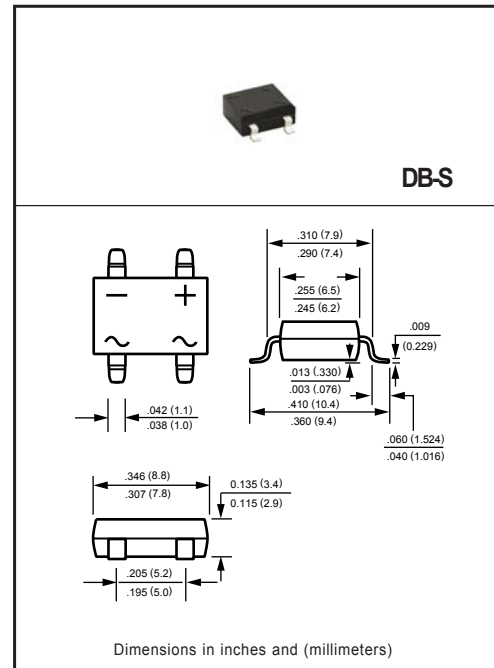
- * Surge overload rating - 40 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 1.0 gram

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-0

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%.



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

RATINGS	SYMBOL	EDB101S	EDB102S	EDB103S	EDB104S	EDB105S	EDB106S	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	Volts
Maximum RMS Bridge Input 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 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 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		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	EDB101S	EDB102S	EDB103S	EDB104S	EDB105S	EDB106S	UNITS
Maximum Forward Voltage at 1.0A DC	V_F	1.05				1.35		Volts
Maximum Reverse Current at Rated DC Blocking Voltage per element	@ $T_A = 25^\circ\text{C}$	5.0						μAmps
	@ $T_A = 100^\circ\text{C}$	100						
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.

2007-08

RATING AND CHARACTERISTICS CURVES (EDB101S THRU EDB106S)

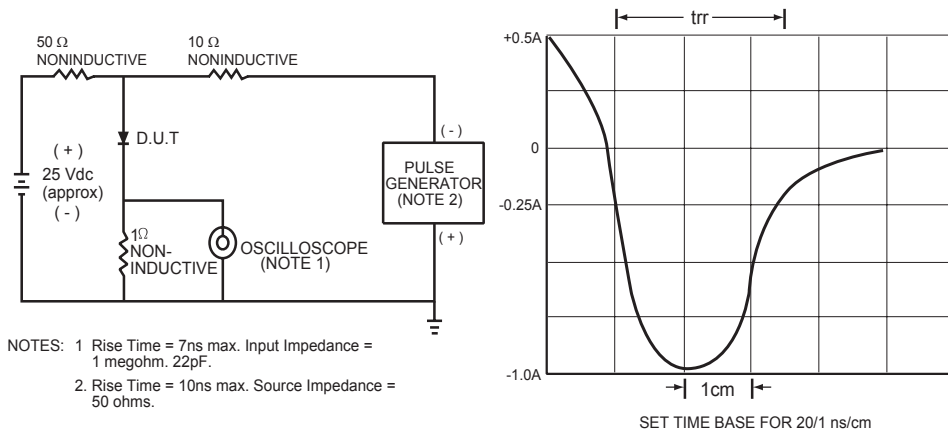


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

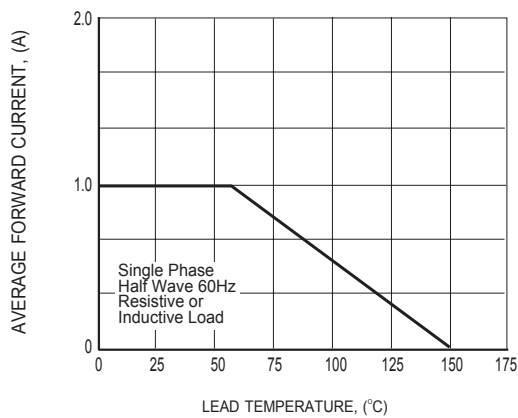


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

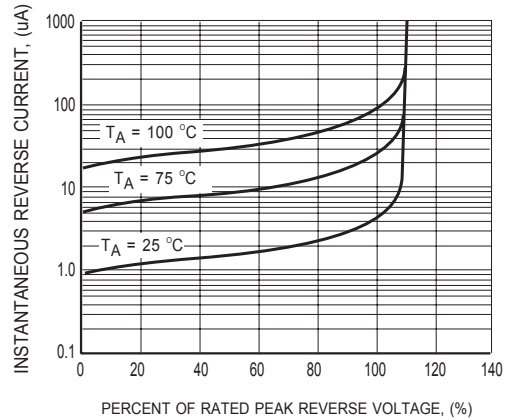


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (EDB101S THRU EDB106S)

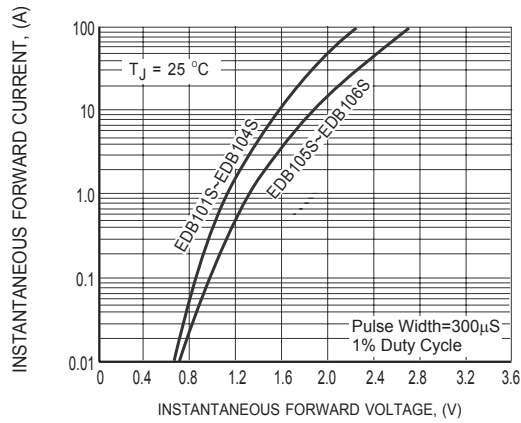


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

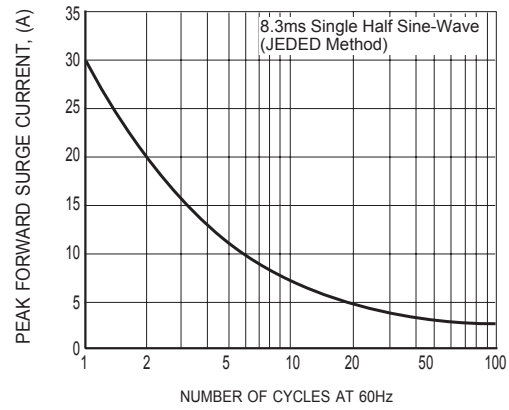


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

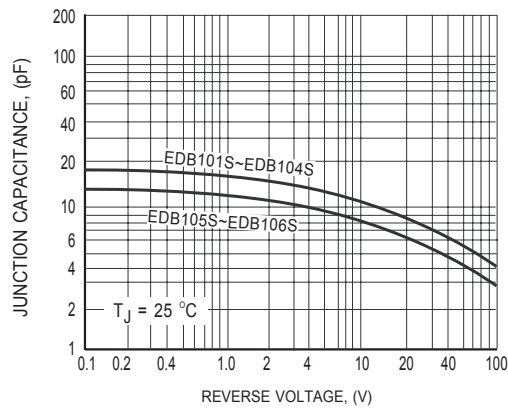
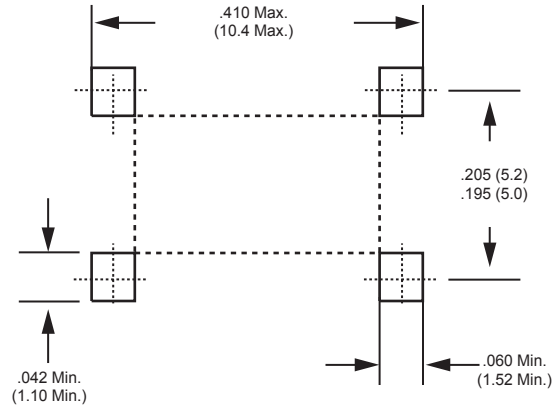


FIG.6 TYPICAL JUNCTION CAPACITANCE

Mounting Pad Layout



Dimensions in inches and (millimeters)