RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

EDB101 THRU EDB106

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

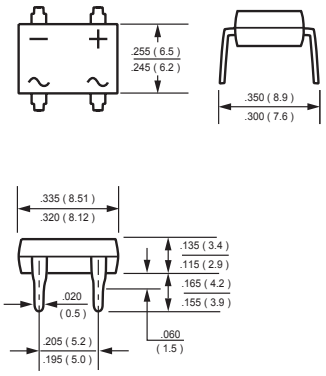
MECHANICAL DATA

* UL listed the recongnized 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°C unless otherwise noted)

RATINGS	SYMBOL	EDB101	EDB102	EDB103	EDB104	EDB105	EDB106	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°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						°C/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						°C

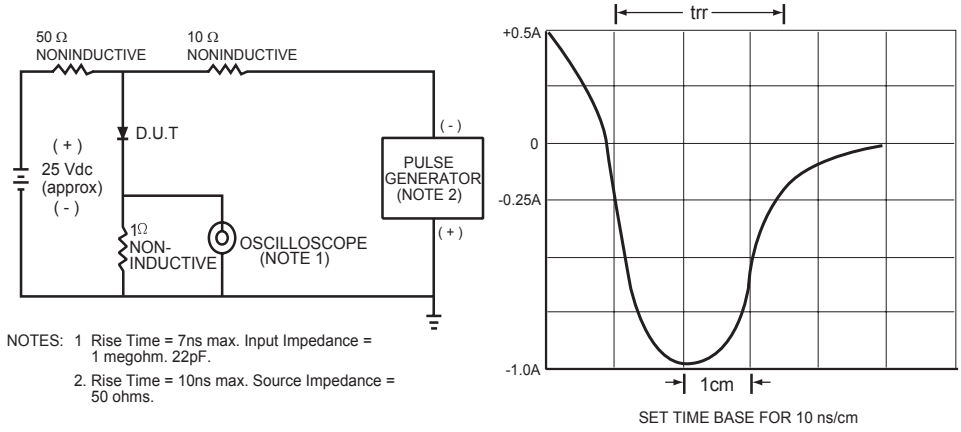
ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	EDB101	EDB102	EDB103	EDB104	EDB105	EDB106	UNITS
Maximum Forward Voltage at 1.0A DC		V_F	1.05				1.35	1.70	Volts
Maximum Reverse Current at Rated	@T_A = 25°C	I_R	5.0						µAmps
DC Blocking Voltage per element	@T_A = 100°C		100						µAmps
Maximum Reverse Recovery Time (Note 1)		trr	50						nSec

Note: 1.Test Conditions: I_F=0.5A,I_R=-1.0A,I_{RR}=-0.25A.
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)



NOTES: 1 Rise Time = 7ns max. Input Impedance = 1 megohm. 22pF.

2. Rise Time = 10ns max. Source Impedance = 50 ohms.

FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

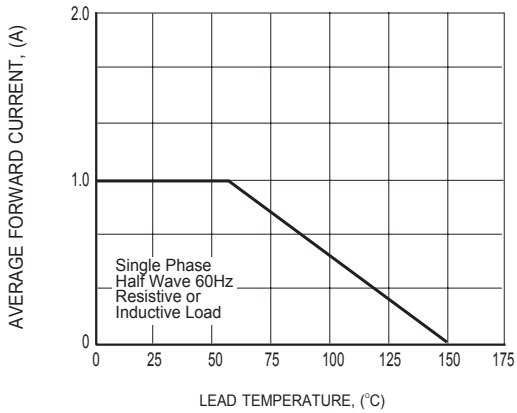


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

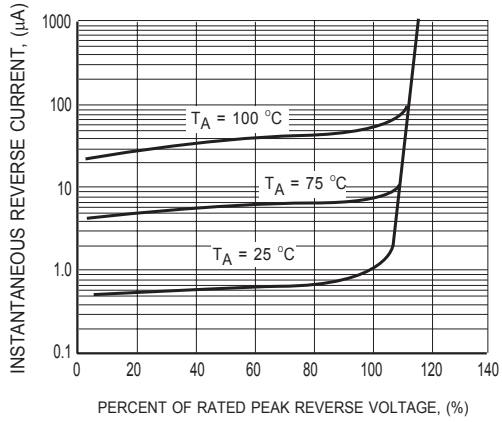


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (EDB101 THRU EDB106)

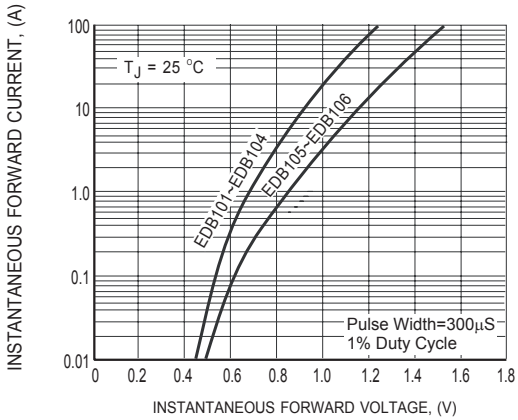


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

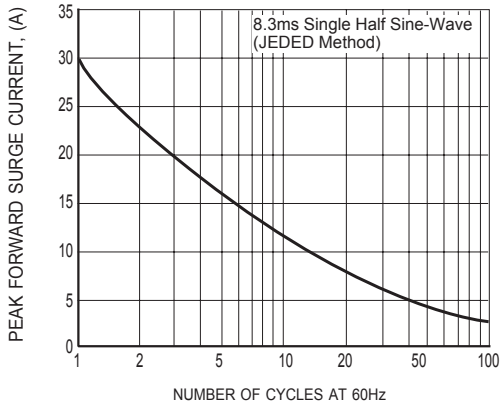


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

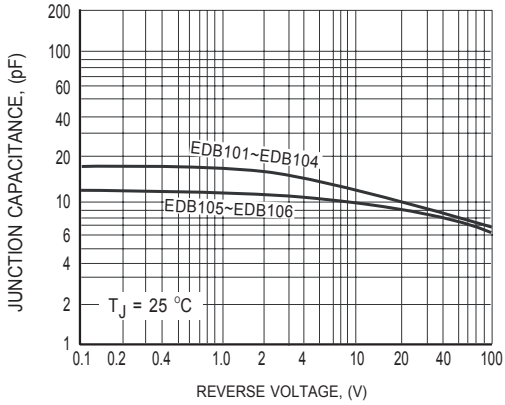


FIG.6 TYPICAL JUNCTION CAPACITANCE

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