



EDB101-EDB106

Silicon Bridge Rectifiers

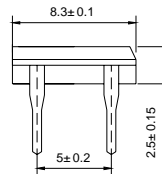
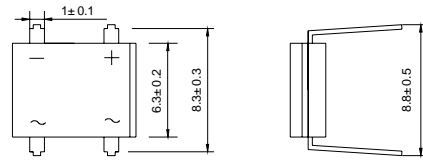
VOLTAGE RANGE: 50 --- 400 V

CURRENT: 1.0 A

DB-1

Features

- ◇ Rating to 400V PRV
- ◇ Surge overload rating to 30 Amperes peak
- ◇ Ideal for printed circuit board
- ◇ Reliable low cost construction utilizing molded
- ◇ Lead solderable per MIL-STD-202 method 208
- ◇ Lead: silver plated copper, solderde plated
- ◇ Plastic material has UL flammability classification 94V-O
- ◇ Polarity symbols molded on body
- ◇ Weight: 1.0 grams



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

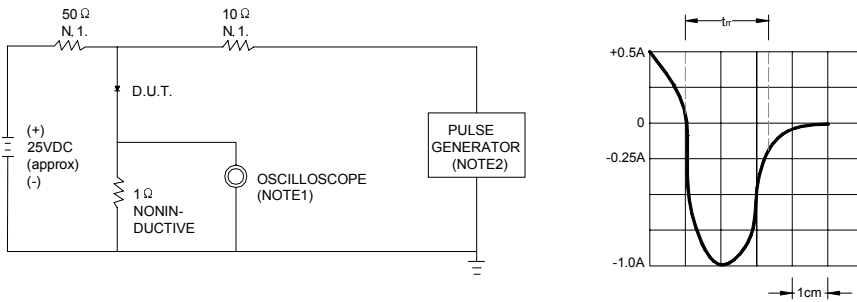
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		EDB 101	EDB 102	EDB 103	EDB 104	EDB 105	EDB 106	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	300	400	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	V
Maximum average forward Output current @ $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I_{FSM}	30.0						A
Maximum instantaneous forward voltage at 1.0 A	V_F	1.0						V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	10.0 1.0						μA mA
Maximum reverse recovery time (NOTE 1)	t_{rr}	50						nS
Typical junction capacitance (NOTE 2)	C_J	15				10		pF
Operating junction temperature range	T_J	- 55 ---- + 150						$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 ---- + 150						$^\circ\text{C}$

NOTE: 1. Test conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$.

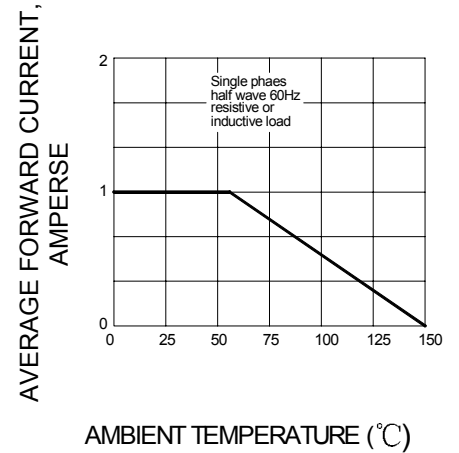
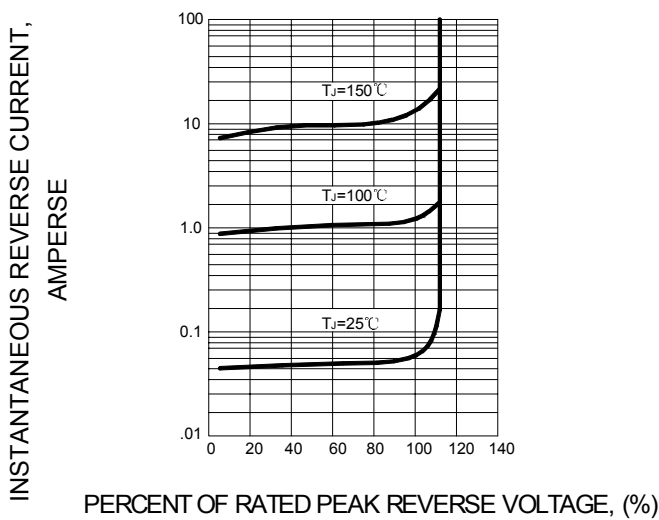
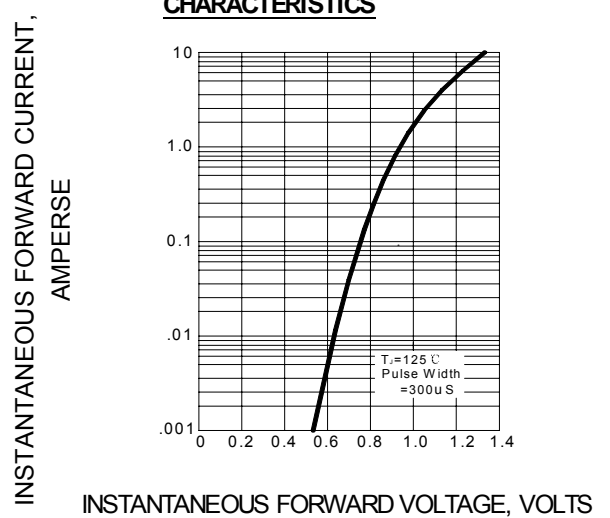
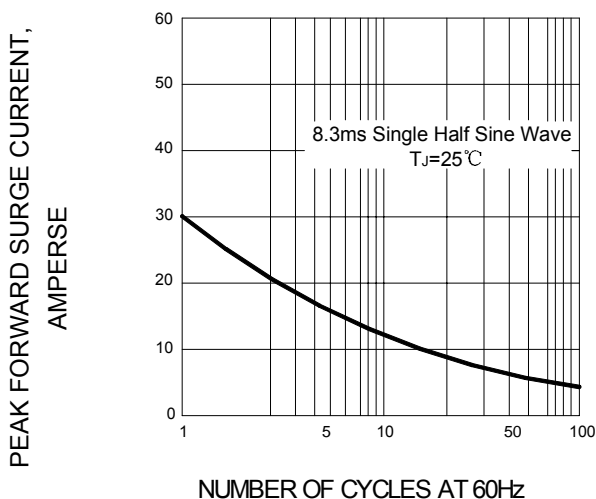
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

Ratings AND Characteristic Curves

FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC


NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1MΩ. 22pF
 2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50Ω

SET TIME BASE FOR
 10 ns / cm

FIG.2 – TYPICAL FORWARD CURRENT DERATING CURVE

FIG.3 – TYPICAL REVERSE CHARACTERISTICS

FIG.4 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

FIG.5 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

FIG.6 – TYPICAL JUNCTION CAPACITANCE
