FDB101-FDB107

Silicon Bridge Rectifiers

VOLTAGE RANGE: 50 --- 1000 V
**CURRENT: 1.0 A**

DB - 1

Features

◇ Rating to 1000V PRV

◇ Surge overload rating to 30 Amperes peak

◇ Ideal for printed circuit board

◇ Reliable low cost construction utilizing molded

  plastic technique results in inexpensive product

◇ 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: 0.016 ounces, 0.45 grams
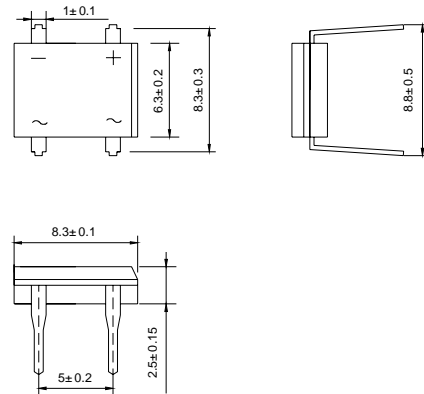
Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
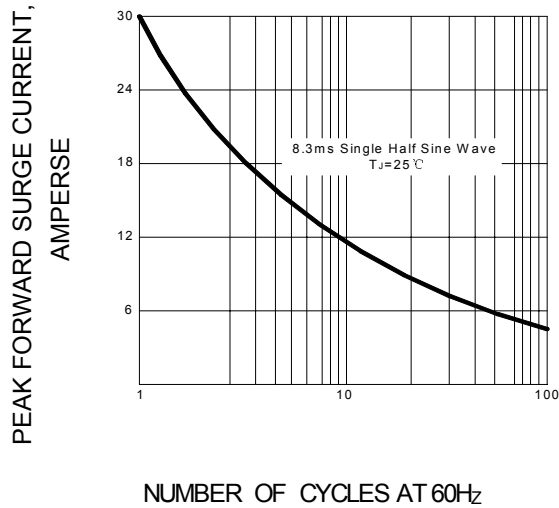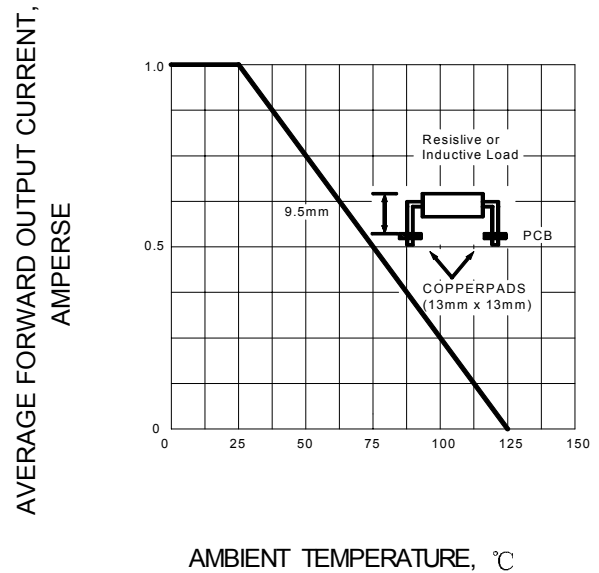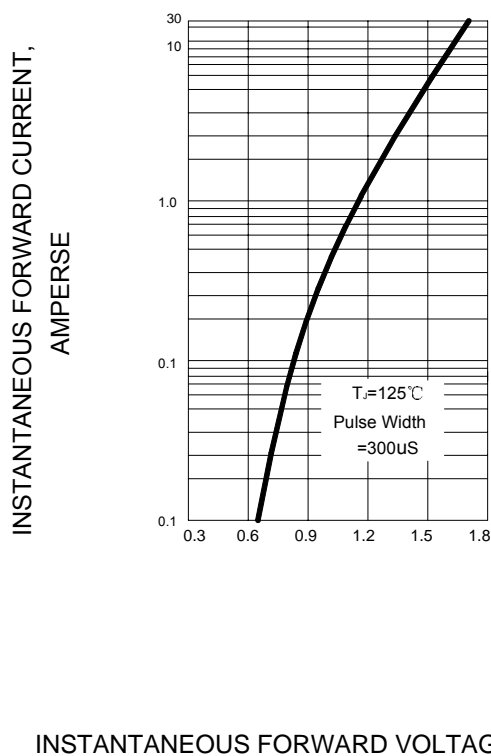
Ratings at 25℃ ambient temperature unless otherwise specified.

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

		FDB 101	FDB 102	FDB 103	FDB 104	FDB 105	FDB 106	FDB 107	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward Output current @T_A=25℃	$I_{F(AV)}$	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	1.3							V
Maximum reverse current @T_A=25℃	I_R	10.0							μA
at rated DC blocking voltage @T_A=100℃		1.0							mA
Maximum reverse recovery time (Note1)	t_{rr}	150			250		500		ns
Operating junction temperature range	T_J	- 55 ---- + 125							℃
Storage temperature range	T_{STG}	- 55 ---- + 150							℃

NOTE:1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

Ratings AND Charactieristic Curves

FIG.1 – PEAK FORWARD SURGE CURRENT

PEAK FORWARD SURGE CURRENT, AMPERSE

8.3ms Single Half Sine Wave
$T_J=25°C$

NUMBER OF CYCLES AT 60Hz

FIG.2 – FORWARD DERATING CURVE

AVERAGE FORWARD OUTPUT CURRENT, AMPERSE

Resislive or Inductive Load

9.5mm

PCB

COPPERPADS
(13mm x 13mm)

AMBIENT TEMPERATURE, °C

FIG.3 – TYPICAL FORWARD CHARACTERISTIC

INSTANTEOUS FORWARD CURRENT, AMPERSE

$T_J=125°C$
Pulse Width
=300uS

INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.4 – TYPICAL REVERSE CHARACTERISTIC

INSTANTANEOUS REVERSE CURRENT, MICRO AMPERSE

$T_J=25°C$

PERCENT OF RATED PEAK REVERSE VOLTAGE,%