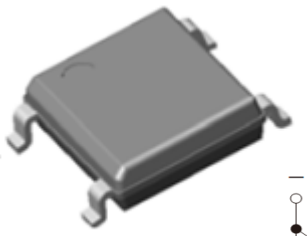
Leading Circuit Protection
Products and Solutions

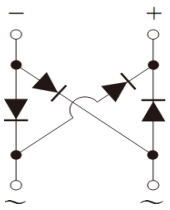
ABS2 ~ABS10
Glass Passivated Bridge Rectifier

Features

- Glass passivated junction chip
- Low reverse leakage
- High forward surge current capability
- High Surge Current Capability
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering guaranteed 250 C/10 seconds at terminals



RoHS COMPLIANT



Mechanical Data

- Case:ABS, Molded Plastic
- Terminals: Solder plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Polarity symbol marking on body
- Mounting Position: Any

Major Ratings and Characteristics

$I_{F(AV)}$	**0.8A,1.0A**
V_{RRM}	**200 V to 1000 V**
I_{FSM}	**35 A**
I_R	**5 μA**
V_F	**1.00V**
T_j **max.**	**150 °C**

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Items	Symbol	ABS2	ABS4	ABS6	ABS8	ABS10	Unit
Peak repetitive reverse voltage DC blocking voltage	V_{RRM} V_{DC}	200	400	600	800	1000	V
Maximum RMS voltage	$V_{R(RMS)}$	140	280	420	560	700	V
Maximum average forward rectified current at T_A (See Fig.1)	$I_{F(AV)}$	0.8 (1) 1.0 (2)					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load(JEDEC Method)	I_{FSM}	35					A
Thermal resistance from junction to lead	$R_{\theta JL}$	25					℃/ W
Thermal resistance from junction to ambient(1)	$R_{\theta JA}$	80					℃/ W
Thermal resistance from junction to ambient(2)	$R_{\theta JA}$	62.5					℃/ W
Operating junction temperature range	T_J	–55 to +150					℃
Storage temperature range	T_{STG}	–55 to +150					℃

Note 1: Mounted on glass epoxy PC board with 1.3mm² solder pad.

Note 2: Mounted on aluminum substrate PC board with 1.3mm² solder pad.

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Items	Test conditions		Symbol	ABS02~ABS10	Unit
Instantaneous forward voltage per leg	I_F=0.5A(3)		V_F	1.0	V
Reverse current	V_R=V_{DC}	T_A=25℃	I_R	5.0	μA
		T_A=125℃		500	

Note: 3.Pulse test:300μs pulse width,1% duty cycle.

Characteristic Curves (TA=25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

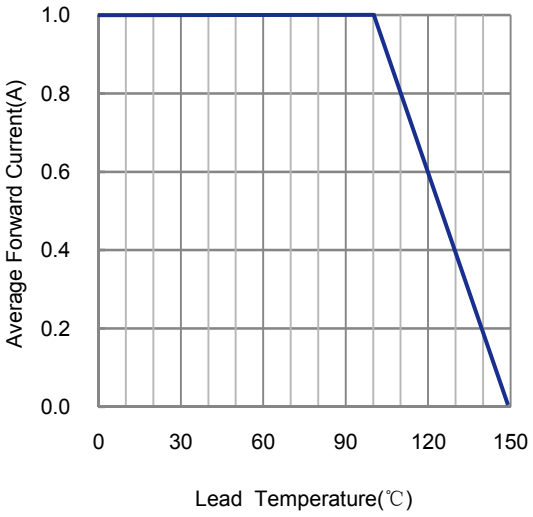


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

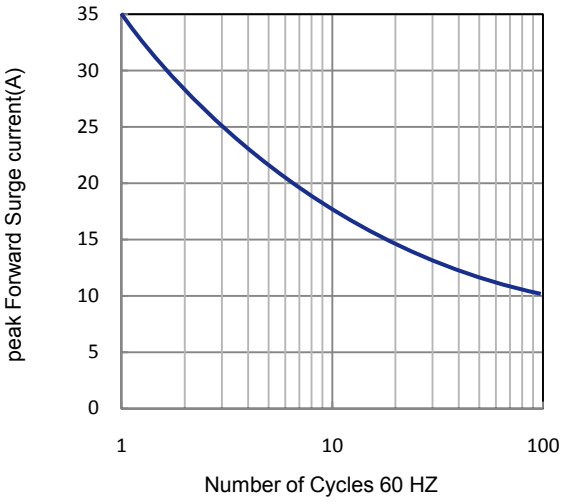


Fig.3 Typical Instantaneous Forward Characteristics

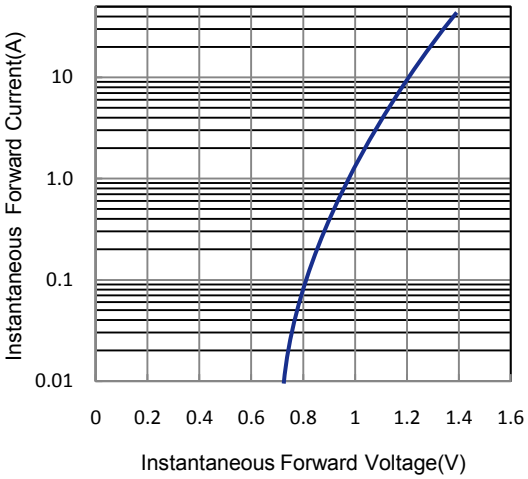
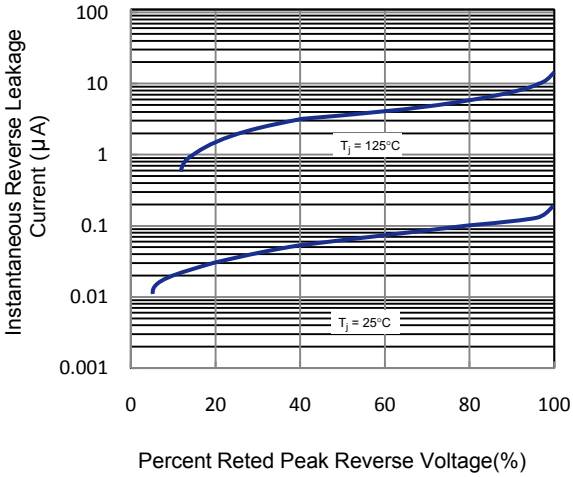
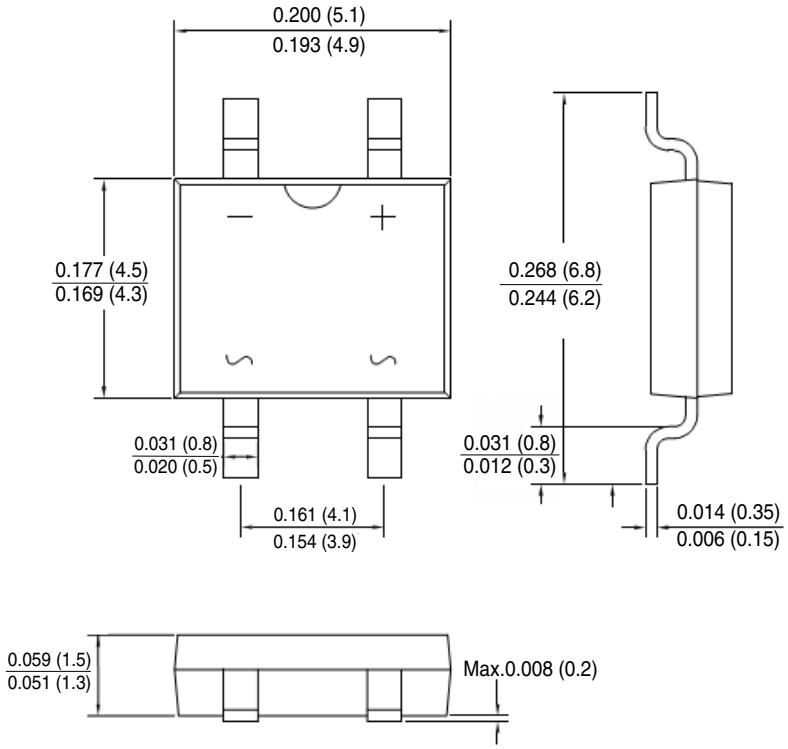


Fig.4 Typicl Reverse Leakage Characteristics



Package Outline

ABS



Dimensions in inches and (millimeters)