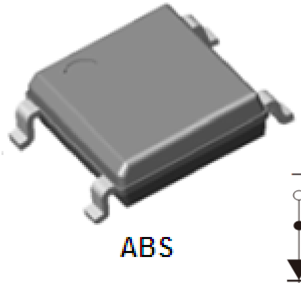
TRR®

# ABS02~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



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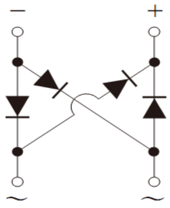
**RoHS**
COMPLIANT



## Mechanical Date

- **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 & Thermal Characteristics
($T_A$ = 25 °C unless otherwise noted)

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

For capacitive load, derate current by 20%.

| Items | Symbol | ABS02 | ABS04 | ABS06 | ABS08 | ABS10 | Unit |
|---|---|---|---|---|---|---|---|
| Peak repetitive reverse voltage<br>DC blocking voltage | $V_{RRM}$<br>$V_{DC}$ | 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)<br>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 1.3mm$^2$ solder pad.

Note 2: Mounted on aluminum substrate PC board with 1.3mm$^2$ solder pad.

## Electrical Characteristics
($T_A$ = 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 (T$_A$=25 ℃ unless otherwise noted)

**Fig.1 Forward Current Derating Curve**

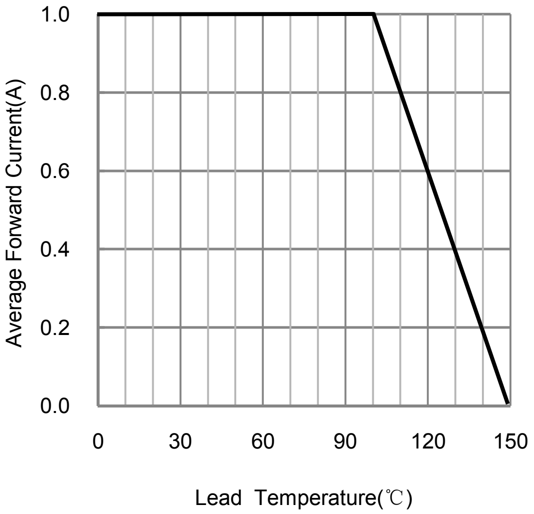


**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**

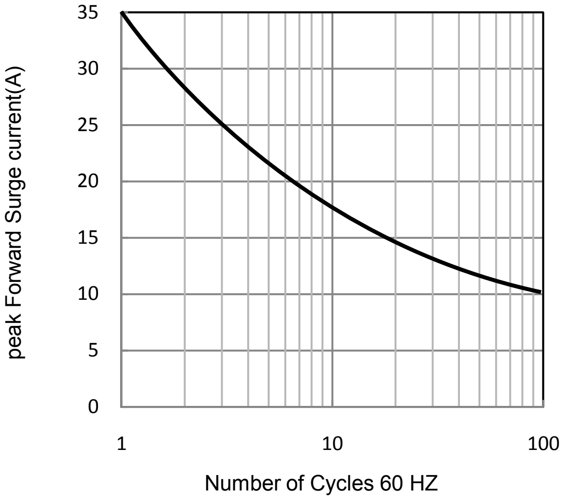


**Fig.3 Typical Instantaneous Forward Characteristics**

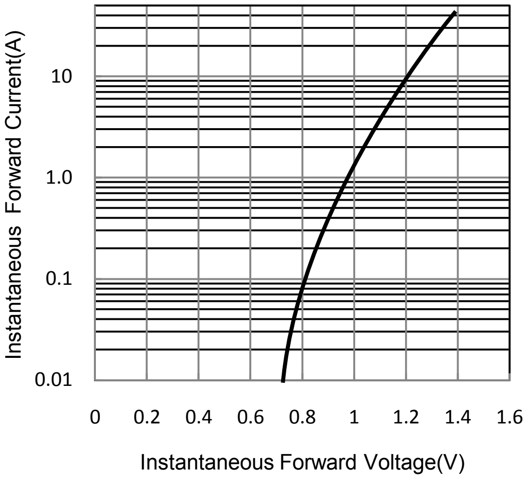
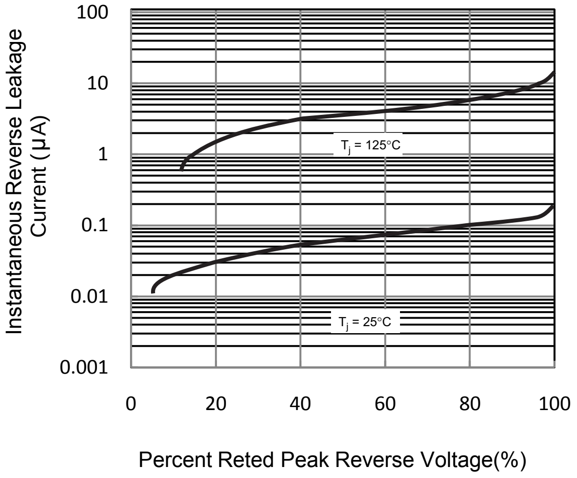
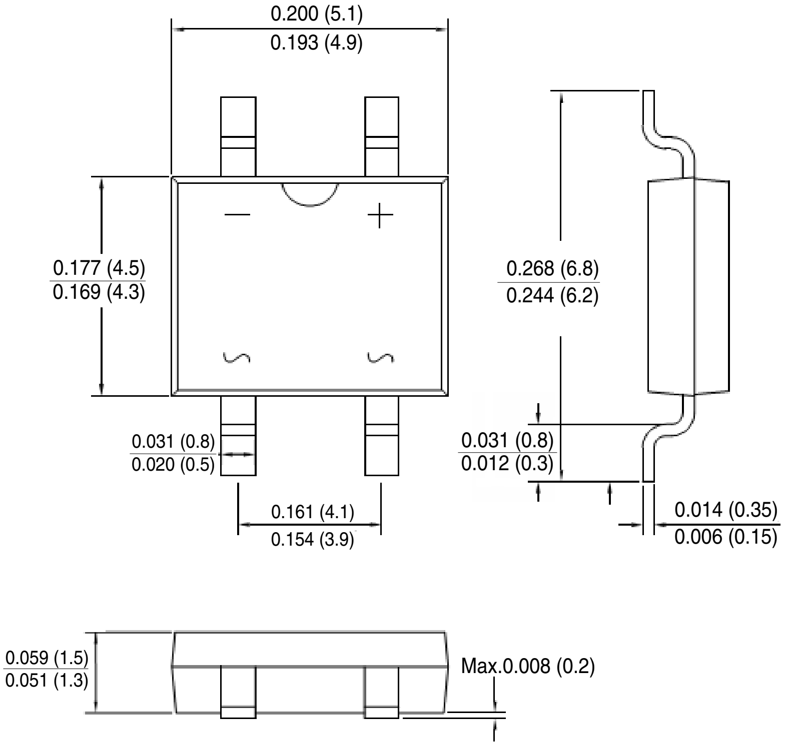


**Fig.4 Typicl Reverse Leakage Characteristics**



## Package Outline

### ABS



Dimensions in inches and (millimeters)