# ABS105S THRU ABS10S

**SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS**

*Reverse Voltage - 50 to 1000 Volts  Forward Current - 1.0 Ampere*

## Features

- Glass passivated chip
- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability

## Mechanical Data

- Polarity: Symbol marked on body
- Mounting position: Any

## Applications

- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.

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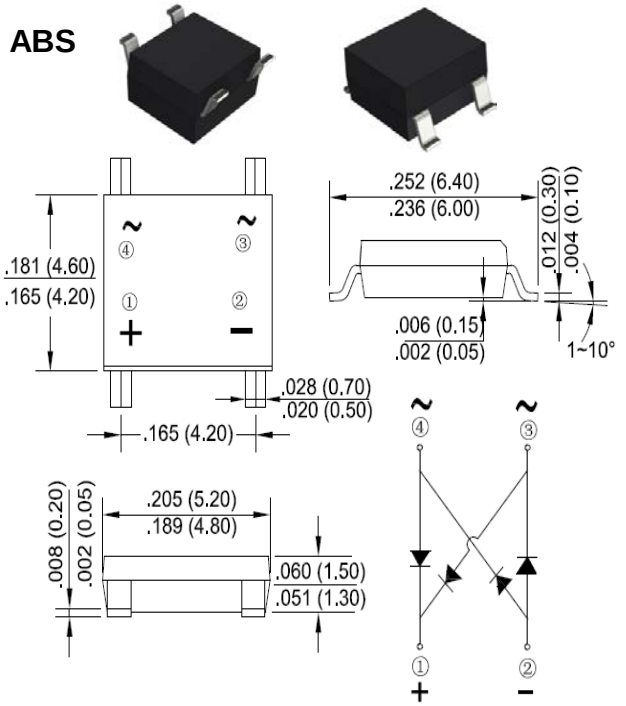
**ABS**




Package Outline Dimensions in Inches (Millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristics | Symbol | ABS105S | ABS11S | ABS12S | ABS14S | ABS16S | ABS18S | ABS10S | Unit 单位 |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive 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 Rectified Current @$T_A$=40 ℃ (Note1) | $I_{(AV)}$ | 2.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method) | $I_{FSM}$ | 60 | | | | | | | A |
| $I^2t$ Rating for Fusing (t<8.3mS) | $I^2t$ | 14.9 | | | | | | | $A^2s$ |
| Peak Forward Voltage per Diode at 2A DC | $V_F$ | 1.1 | | | | | | | V |
| Maximum DC Reverse Current at Rated @$T_J$=25℃<br>DC Blocking Voltage per Diode @$T_J$=125℃ | $I_R$ | 5.0<br>500 | | | | | | | μA |
| Typical Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 80 | | | | | | | ℃/W |
| Operating Junction Temperature Range | $T_J$ | -55 to +150 | | | | | | | ℃ |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | | | | | | | ℃ |

Notes: 1.Mounted on P.C. board.

2.The typical data above is for reference only

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Fig. 1 - Forward Current Derating Curve

图1 正向电流降额曲线

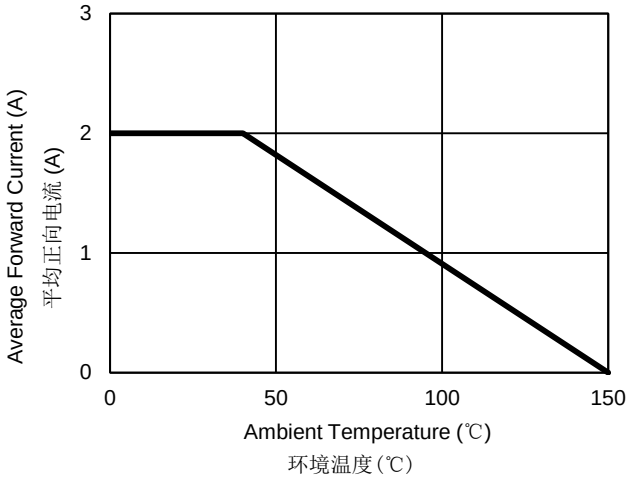



Fig. 2 - Maximum Non-Repetitive Surge Current

图2 最大不重复正向浪涌曲线

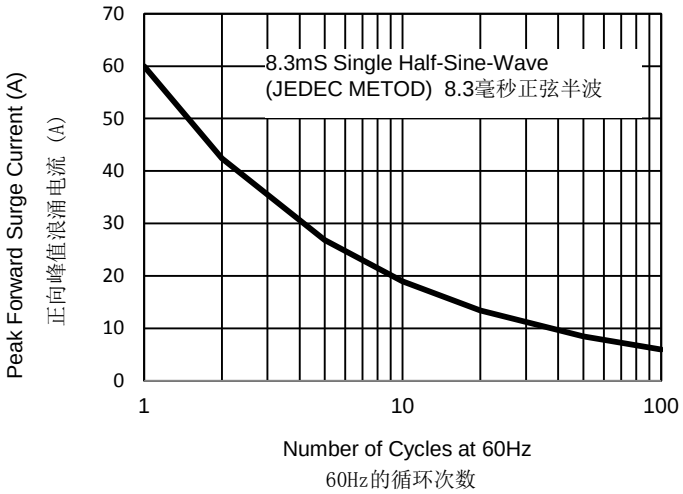



Fig. 3 - Typical Reverse Characteristics

图3 典型的反向特性

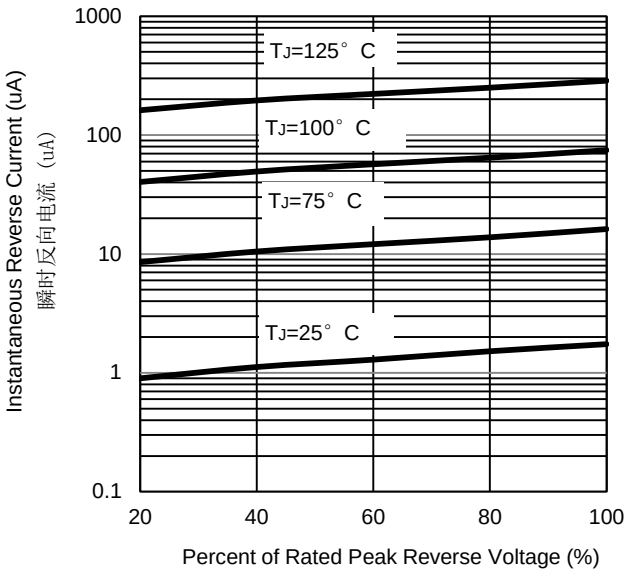
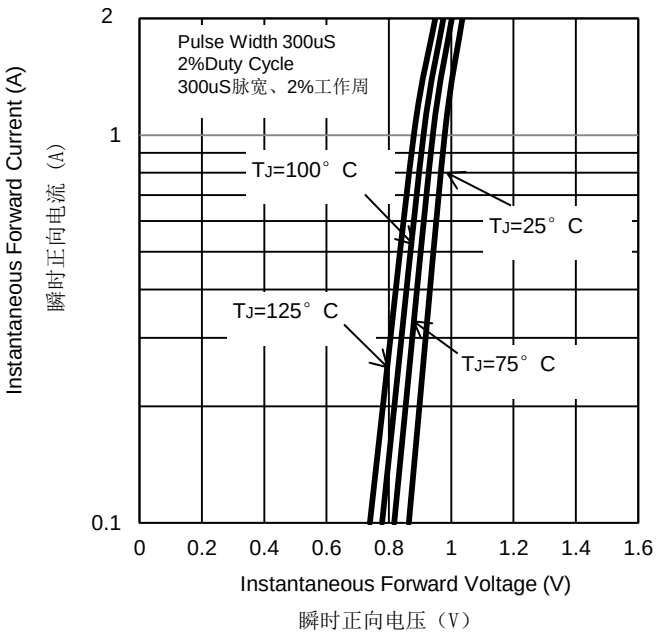



Fig. 4 - Typical Forward Characteristics

图4 典型的正向特性

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