

Surface Mount Glass Passivated Standard Rectifiers Reverse Voltage 50V to 1000V Forward Current 2.0A

Features

- · For surface mounted applications
- · Low profile package
- · Buili-in strain relief, ideal for automated placement
- · glass passivated chip junction
- Moisture sensitivity: level 1, per J-STD-020
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- AEC-Q101 Qualified







DO-214AA (SMB)

Typical Applications

• Case: JEDEC DO-214AA (SMB) molded plastic body over glass passivated chip

• Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

| MAXIMUM RATINGS (TA = 25 °C unless otherwise noted) | | | | | |
|--|----------|---------------|------|--|--|
| PARAMETER | SYMBOL | AS2M | UNIT | | |
| Maximum repetitive peak reverse voltage | VRRM | 1000 | V | | |
| Maximum RMS voltage | VRMS | 700 | V | | |
| Maximum DC blocking voltage | VDC | 1000 | V | | |
| Maximum average forward rectified current at TL(See Fig.1) | IF(AV) | 2.0 | Α | | |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | IFSM | 50 | Α | | |
| Operating junction and storage temperature range | TJ, TSTG | - 55 to + 175 | °C | | |

| ELECTRICAL CHARACTERISTICS (TA = 25 °C unless otherwise noted) | | | | | |
|--|-------------------------------|-----------------|------|-------|--|
| PARAMETER | TEST CONDITIONS | SYMBOL | AS2M | UNIT | |
| Maximum instantaneous forward voltage | 2A | V _F | 1.15 | Volts | |
| Maximum DC reverse current at rated DC blocking voltage | TA=25℃ | I _R | 1.0 | μA | |
| | TA=125℃ | | 125 | | |
| Typical reverse recovery time | IF=0.5A,IR=1.0A, Irr=0.25A | t _{rr} | 1.8 | uS | |
| Typical thermal resistance ¹⁾ | juntion to ambient | $R_{	heta JA}$ | 53 | °C/W | |
| | juntion to lead | $R_{\theta JI}$ | 16 | | |
| Typical junction capacitance | 4.0 V, 1 MHz | CJ | 30 | pF | |

Note:1), The thermal resistance from junction to ambient, case or lead, mounted on P.C.B with 8.0×8.0mm copper pads



Ratings and Characteristics Curves

 $(TA = 25^{\circ}C \text{ unless otherwise noted})$

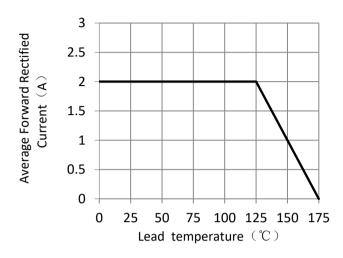


Figure 1. Forward Current Derating Curve

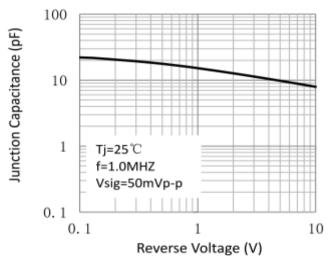


Figure 3. Typical Junction Capacitance

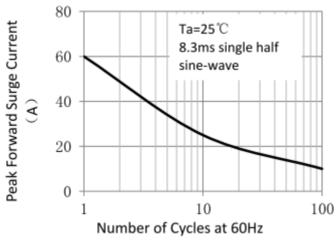


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

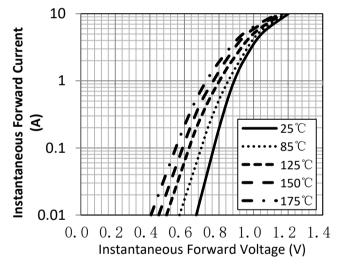


Figure 4. Typical Instantaneous Forward Characteristics

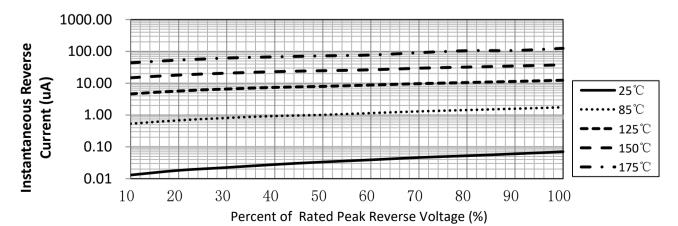


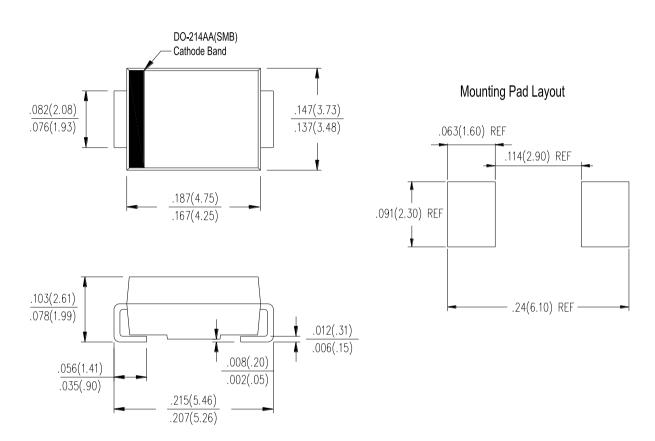
Figure 5. Typical Reverse Characteristics



Reverse Voltage 50V to 1000V Forward Current 2.0A

Package Outline Dimensions

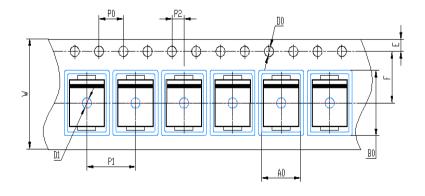
in inches (millimeters)



Packing Information

3000 pcs/Reel, 18 Reels/Box; 12mm Tape, 13" Reel

Tape & Reel Specification



| Symbols | SMB (mm) |
|---------|----------------|
| W | 12 ± 0.2 |
| Е | 1.75 ± 0.1 |
| F | 5.5 ± 0.05 |
| DO | 1.5 ± 0.1 |
| D1 | 1.50 +0.1/-0 |
| Р0 | 4.0 ± 0.1 |
| P1 | 8.0 ± 0.1 |
| P2 | 2.0 ± 0.05 |
| AO | 3.95 ± 0.1 |
| В0 | 5.74 ± 0.1 |

Surface Mount Glass Passivated Standard Rectifiers

Reverse Voltage 50V to 1000V Forward Current 2.0A

Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Suzhou Good-Ark product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Suzhou Good-Ark Electronics Co., Ltd.or a third party.

Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.

All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Suzhou Good-Ark Electronics Co., Ltd. without notice due to product improvements or other reasons. It is therefore recommended that customers contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized Suzhou Good-Ark Electronics Co., Ltd. for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Suzhou Good-Ark Electronics Co., Ltd. by various means, including our website home page. (http://www.goodark.com)

When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, Please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Suzhou Good-Ark Electronics Co., Ltd. is necessary to reprint or reproduce in whole or in part these materials.

Please contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized distributor for further details on these materials or the products contained herein.