

# Preliminary SS34MA/SS34D

## SWITCHMODE SCHOTTKY RECTIFIER

### Description

Packaged in SMA, and low profile 2010, this device is intended for use in low and medium voltage operation, high frequency inverters, freewheeling and polarity protection applications where low switching losses are required.

### Features

- Very small conduction losses
- Low forward voltage drop/ reverse current losses
- Negligible switching losses
- Extremely fast switching
- Meets MSL level 1, per J-STD-020
- Solder dip 260 °C max. 10 s, per JESD 22-A111
- RoHS Compliant package

### Application

- RoHS Compliant package
- Switching Mode Power Supply Applications
- Portable Equipment Battery Applications
- DC-DC Converter Applications

### Mechanical Data

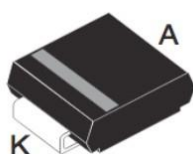
- Case:
- SMA Conform to JEDEC DO214AC
- 2010: Packed with FRP substrate and epoxy under filled
- Molding compound meets UL 94 V-0 flammability
- Weight: SMA: 0.065 gram; 2010: 0.02 gram

### Packing & Order Information

5,000/Reel

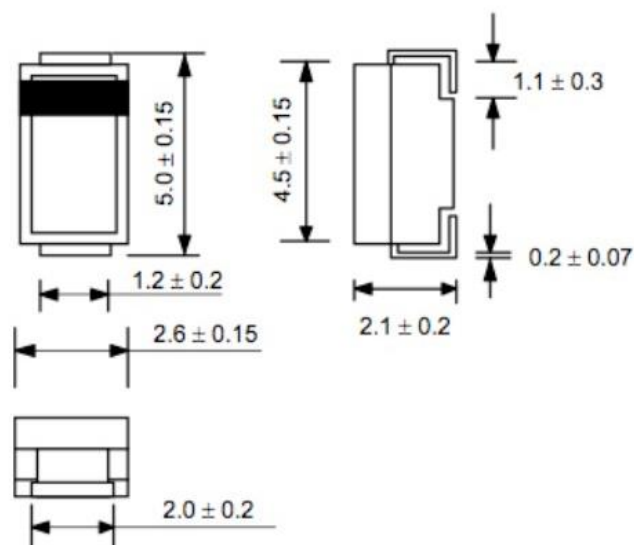
SMA

2010

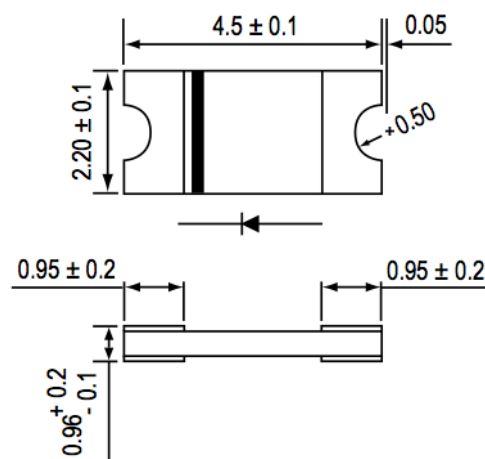


**RoHS**  
COMPLIANT

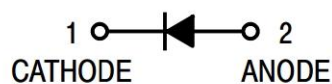
SMA



2010



### Graphic symbol



## Preliminary SS34MA/SS34D

### SWITCHMODE SCHOTTKY RECTIFIER

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

##### Maximum Ratings (Tc=25°C unless otherwise noted)

| Parameter                                                                                              | Symbol | SS34MA      | SS34DA | Unit |
|--------------------------------------------------------------------------------------------------------|--------|-------------|--------|------|
| Maximum repetitive peak reverse voltage                                                                | VRRM   | 40          |        | V    |
| Working peak reverse voltage                                                                           | VRWM   | 28          |        | V    |
| Maximum DC blocking voltage                                                                            | VDC    | 40          |        | V    |
| Maximum average forward rectified current                                                              | IF(AV) | 3           |        | A    |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed<br>on rated load (JEDEC Method) | IFSM   | 80          |        | A    |
| Non-repetitive avalanche energy at 25 °C<br>IAS = 2 A per diode                                        | EAS    | 20          |        | m'J  |
| Operating junction temperature range                                                                   | TJ     | -55 to +150 |        | °C   |
| Storage temperature range                                                                              | TSTG   | -55 to +150 |        | °C   |

##### Notes:

Mounted on 2" Square PC Board with 1" Square Total Pad Size, PC Board FR4.

##### Electrical characteristics (Tc=25°C unless otherwise noted)

| Parameter                                                                                                        | Symbol | Value         |                      | Unit |
|------------------------------------------------------------------------------------------------------------------|--------|---------------|----------------------|------|
|                                                                                                                  |        | Typical       | Max                  |      |
| Instantaneous forward voltage at IF=3A, Tj=25°C<br>at IF=5A, Tj=25°C<br>at IF=3A, Tj=125°C<br>at IF=5A, Tj=125°C | VF     | 0.495<br>0.58 | 0.53<br>0.45<br>0.55 | V    |
| Maximum reverse current Tj=25°C                                                                                  | IR     | 50            |                      | u'A  |
| at working peak reverse voltage Tj=125°C                                                                         |        | 20            |                      | m'A  |

##### Thermal characteristics (Tc=25°C unless otherwise noted)

| Parameter                  | Value  |        |        | Unit |
|----------------------------|--------|--------|--------|------|
| Typical thermal resistance | Symbol | SS34MA | SS34DA | °C/W |
|                            | RθJL   | 15     | 24     |      |
|                            | Rthja  | 80     | 86     |      |

##### Notes:

- (1) Pulse test: 300 μs pulse width, 1 % duty cycle
- (2) Pulse test: Pulse width ≤ 40 ms

## Preliminary SS34MA/SS34D

### SWITCHMODE SCHOTTKY RECTIFIER

#### Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Bruckewell Technology Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Bruckewell"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product. Bruckewell makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Bruckewell disclaims

- (i) Any and all liability arising out of the application or use of any product.
- (ii) Any and all liability, including without limitation special, consequential or incidental damages.
- (iii) Any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Bruckewell's knowledge of typical requirements that are often placed on Bruckewell products in generic applications.

Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time.

Product specifications do not expand or otherwise modify Bruckewell's terms and conditions of purchase, including but not limited to the warranty expressed therein.