

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SS32 - S300



DO-214AA (SMB)  
Surface Mount Package

Polarity : Colour band denotes cathode end

For use in Low Voltage, High Frequency Inverters, Free Wheeling Diodes and Polarity Protection Applications

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

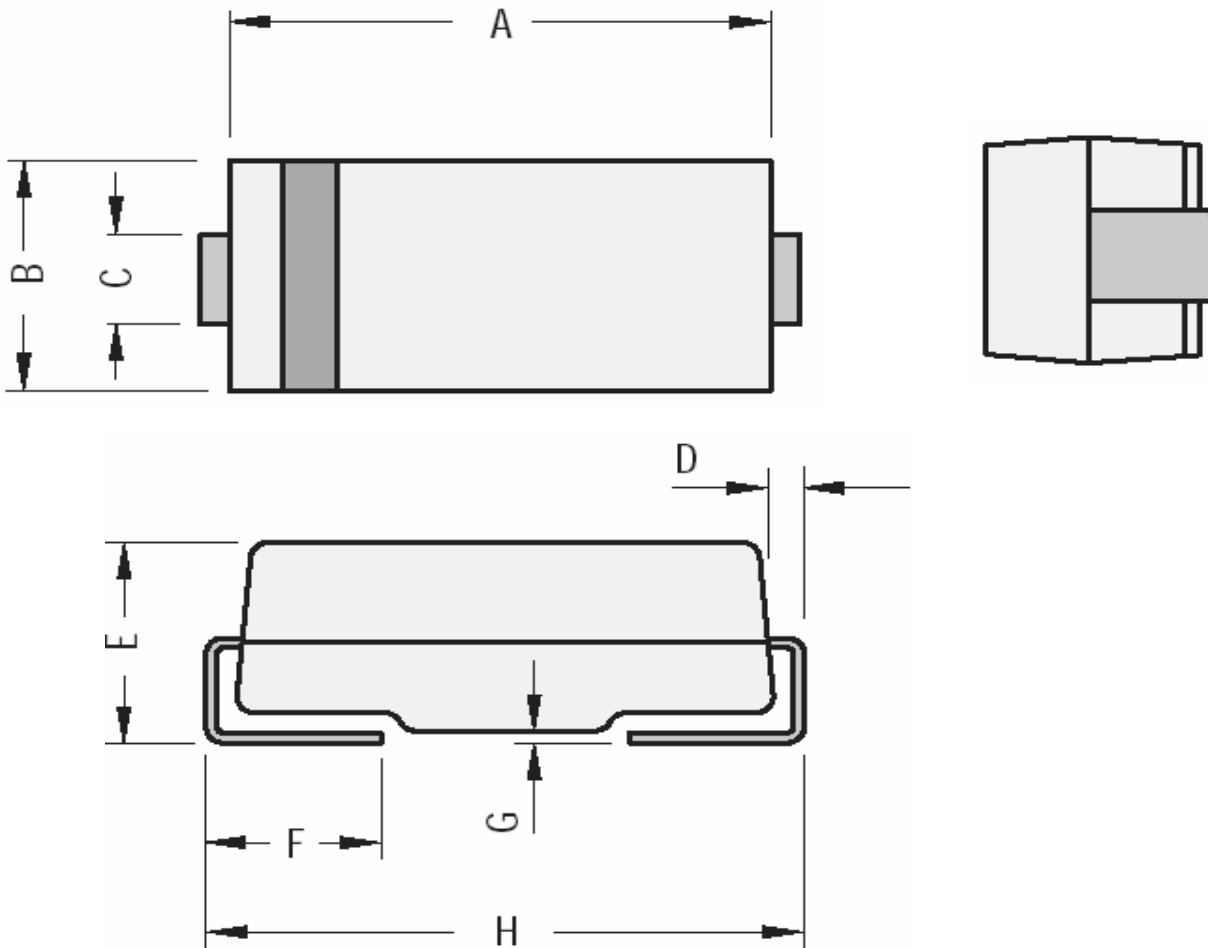
Rating at 25°C ambient temperature unless specified otherwise. Resistive or Inductive Load.

| DESCRIPTION                                                                                     | SYMBOL                  | SS32         | SS33 | SS34 | SS35 | SS36 | SS38 | SS39 | S300 | UNIT |
|-------------------------------------------------------------------------------------------------|-------------------------|--------------|------|------|------|------|------|------|------|------|
| Maximum Peak Repetitive Reverse Voltage                                                         | V <sub>RRM</sub>        | 20           | 30   | 40   | 50   | 60   | 80   | 90   | 100  | V    |
| Maximum RMS Voltage                                                                             | V <sub>RMS</sub>        | 14           | 21   | 28   | 35   | 42   | 56   | 64   | 71   | V    |
| Maximum DC Blocking Voltage                                                                     | V <sub>DC</sub>         | 20           | 30   | 40   | 50   | 60   | 80   | 90   | 100  | V    |
| Maximum Average Forward Rectified Current<br>0.375" (9.5mm) Lead Length at T <sub>L</sub> =75°C | I <sub>(AV)</sub>       | 3.0          |      |      |      |      |      |      |      | A    |
| Peak Forward Surge Current 8.3ms<br>single half sine-wave superimposed on<br>rated load         | I <sub>FSM</sub>        | 80           |      |      |      |      |      |      |      | A    |
| Maximum Instantaneous Forward Voltage at<br>I <sub>F</sub> =3.0A                                | *V <sub>F</sub>         | 0.50         |      |      | 0.70 |      | 0.85 |      |      | V    |
| Maximum DC Reverse Current    T <sub>a</sub> =25°C                                              | *I <sub>R</sub>         | 0.5          |      |      |      |      |      |      |      | mA   |
| at Rated DC Blocking Voltage    T <sub>a</sub> =100°C                                           |                         | 20           |      |      |      |      |      |      |      | mA   |
| Thermal Resistance Junction to Ambient                                                          | **R <sub>th (j-a)</sub> | TYP55        |      |      |      |      |      |      |      | °C/W |
|                                                                                                 | **R <sub>th (j-a)</sub> | TYP17        |      |      |      |      |      |      |      | °C/W |
| Operating Junction Temperature Range                                                            | T <sub>j</sub>          | - 55 to +125 |      |      |      |      |      |      |      | °C   |
| Storage Temperature Range                                                                       | T <sub>stg</sub>        | - 55 to +150 |      |      |      |      |      |      |      | °C   |

\* Pulse Test With  $PW=300\text{ms}$ , 1% Duty Cycle.

\*\* Mounted on PCB with 0.30" x 0.30" (8.0 x 8.0 mm) Copper Pad Area

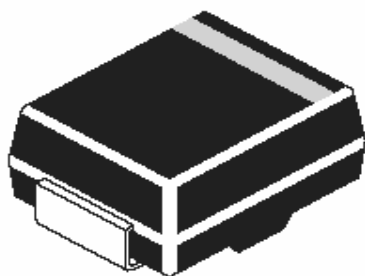
SS32\_S300Rev290405E

**DO-214AA (SMB)**  
**Surface Mount Package**
**DO-214AA (SMB) SMD Plastic Package**


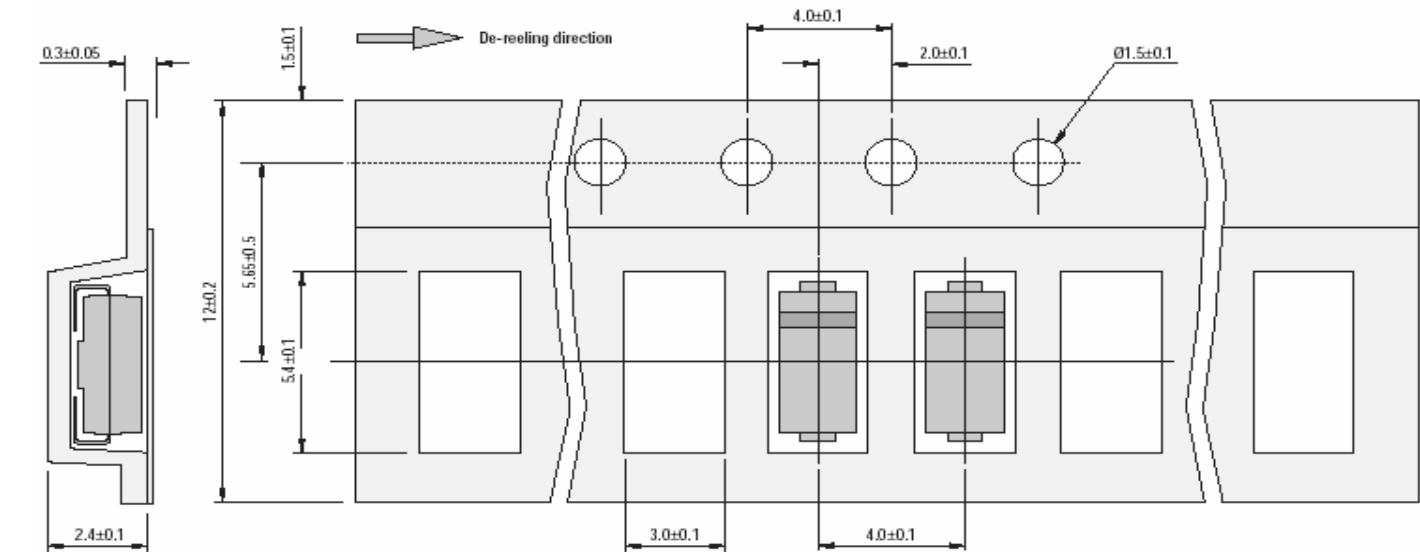
| DIM | Min   | Max   |
|-----|-------|-------|
| A   | 4.06  | 4.57  |
| B   | 3.30  | 3.94  |
| C   | 1.96  | 2.11  |
| D   | 0.152 | 0.305 |

| DIM | Min   | Max   |
|-----|-------|-------|
| E   | 2.13  | 2.44  |
| F   | 0.76  | 1.52  |
| G   | 0.102 | 0.203 |
| H   | 5.21  | 5.59  |

**All Dimensions are in mm**



SMB Packing Tape



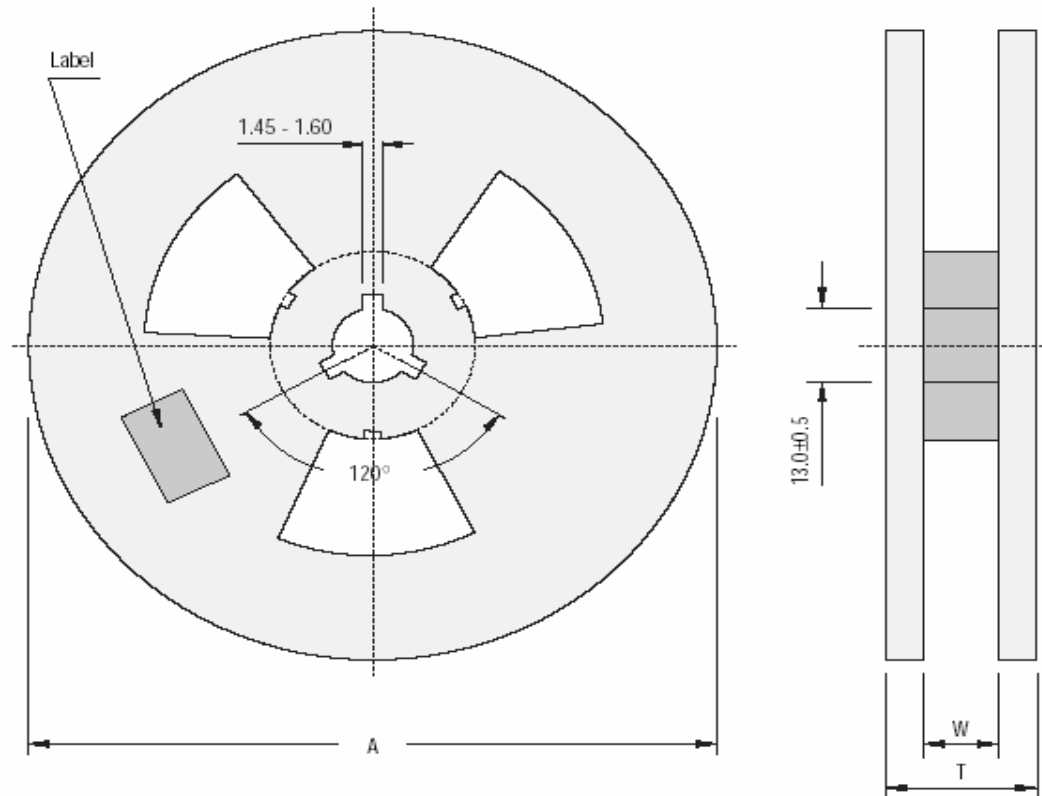
All Dimensions are in mm

Packaging Information

| Package/<br>Case Type | Packaging Type | Std. Packing<br>Qty | Inner Carton |                        |                      | Outer Carton |                        |                      |
|-----------------------|----------------|---------------------|--------------|------------------------|----------------------|--------------|------------------------|----------------------|
|                       |                |                     | Qty          | Size L x W x H<br>(cm) | Gross Weight<br>(Kg) | Qty          | Size L x W x H<br>(cm) | Gross Weight<br>(Kg) |
| DO-214AA (SMB)        | T&R            | 5,000               |              |                        |                      | 50K          | 46 x 38 x 22           | 8.9                  |

T & R: Tape and Reel

### Reel Dimensions for SMD Package



**Reel Specifications**

| Package        | Tape Width | Reel Dia.<br>A - Max | Inside Thickness<br>W | Reel Thickness<br>T - max |
|----------------|------------|----------------------|-----------------------|---------------------------|
| DO-214AA (SMB) | 12         | 330                  | 12.4 ± 2              | 18.4                      |

**All Dimensions are in mm**

### Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

### Disclaimer

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