1SS351

Schottky Barrier Diode
Dual Series Schottky Barrier Diode for Mixer and Detector
5V, 30mA, 0.69pF, CP

Features
- Series connection of 2 elements in a small-sized package facilitates high-density mounting and permits 1SS351-applied equipment to be made smaller
- Small interterminal capacitance (C=0.69pF typ)
- Small forward voltage (V_F=0.23V max)

Specifications

Absolute Maximum Ratings at Ta=25°C

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Conditions</th>
<th>Ratings</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Reverse Voltage</td>
<td>VRM</td>
<td></td>
<td>5</td>
<td>V</td>
</tr>
<tr>
<td>Forward Current</td>
<td>I_F</td>
<td></td>
<td>30</td>
<td>mA</td>
</tr>
<tr>
<td>Junction Temperature</td>
<td>Tj</td>
<td></td>
<td>125</td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>T_stg</td>
<td></td>
<td>-55 to +125</td>
<td>°C</td>
</tr>
</tbody>
</table>

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions
unit : mm (typ)
7013A-003

Product & Package Information
- Package : CP
- JETIA, JEDEC : SC-59, TO-236, SOT-23, TO-236AB
- Minimum Packing Quantity : 3,000 pcs./reel

Packing Type: TB

Marking

Electrical Connection
# Electrical Characteristics at Ta=25°C

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Conditions</th>
<th>Ratings</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward Voltage</td>
<td>$V_F$</td>
<td>$I_F=1,mA$</td>
<td></td>
<td>0.23 V</td>
</tr>
<tr>
<td>Forward Current</td>
<td>$I_F$</td>
<td>$V_F=0.5,V$</td>
<td></td>
<td>30 mA</td>
</tr>
<tr>
<td>Reverse Current</td>
<td>$I_R$</td>
<td>$V_R=0.5,V$</td>
<td></td>
<td>25 μA</td>
</tr>
<tr>
<td>Interterminal Capacitance</td>
<td>$C$</td>
<td>$V_R=0.2,V$, $f=1,MHz$</td>
<td>0.69 0.9</td>
<td>pF</td>
</tr>
</tbody>
</table>

Note)*: The specifications shown above are for each individual diode.

### Ordering Information

<table>
<thead>
<tr>
<th>Device</th>
<th>Package</th>
<th>Shipping</th>
<th>memo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SS351-TB-E</td>
<td>CP</td>
<td>3,000 pcs./reel</td>
<td>Pb Free</td>
</tr>
</tbody>
</table>
Forward Current, IF — mA
Forward Voltage, VF — V
Reverse Current, IR — μA
Reverse Voltage, VR — V
Interterminal Capacitance, C — pF

From top
Ta=100°C
75°C
50°C
25°C
0°C
-25°C
-50°C

From left side
Ta=100°C
75°C
50°C
25°C
0°C
-25°C
-50°C

f=1MHz
Embosed Taping Specification
ISS351-TB-E

1. Packing Format

<table>
<thead>
<tr>
<th>Package Name</th>
<th>Carrier Tape Type</th>
<th>Maximum Number of Devices (combined total)</th>
<th>Packing Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP</td>
<td>CP</td>
<td>3,000 15,000 90,000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inner BOX (C-1)</th>
<th>Outer BOX (A-7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 reels contained</td>
<td>5 inner boxes contained</td>
</tr>
<tr>
<td>Dimensions: mm (external)</td>
<td>Dimensions: mm (external)</td>
</tr>
<tr>
<td>183×72×185</td>
<td>440×195×210</td>
</tr>
</tbody>
</table>

Packing method

Reel label, Inner box label (unit:mm)

Outer box label

It is a label at the time of factory shipments. The form of a label may change in physical distribution process.

NOTE:
The LEAD FREE # description shows that the surface treatment of the terminal is lead free.

<table>
<thead>
<tr>
<th>Label</th>
<th>JEITA Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD FREE 3</td>
<td>JEITA Phase 3A</td>
</tr>
<tr>
<td>LEAD FREE 4</td>
<td>JEITA Phase 3</td>
</tr>
</tbody>
</table>

2. Taping configuration

2-1. Carrier tape size (unit:mm)

Device mounting recess square hole

2-2. Device placement direction

Those with one electrode terminal on the feed hole side...TB
Outline Drawing
1SS351-TB-E

Land Pattern Example

Mass (g) Unit
0.013 mm

For reference

Unit: mm

0.8

0.95 0.95

2.4