FEATURES
- Low power loss, high efficiency
- Ideal for automated placement
- Guard ring for over-voltage protection
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

MECHANICAL DATA
Case: SOD-123W
Molding compound: UL flammability classification rating 94V-0
Moisture sensitivity level: level 1, per J-STD-020
Part no. with suffix "H" means AEC-Q101 qualified
Packing code with suffix "G" means green compound (halogen-free)
Terminal: Matte tin plated leads, solderable per J-STD-002
Meet JESD 201 class 2 whisker test
Polarity: Indicated by cathode band
Weight: 16 mg (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>SYMBOL</th>
<th>SS34 LW</th>
<th>SS36 LW</th>
<th>SS310 LW</th>
<th>SS315 LW</th>
<th>SS320 LW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marking code</td>
<td>MARKING</td>
<td>34LW</td>
<td>36LW</td>
<td>30LW</td>
<td>3ALW</td>
<td>3BLW</td>
</tr>
<tr>
<td>Maximum repetitive peak reverse voltage</td>
<td>V_{RRM}</td>
<td>40</td>
<td>60</td>
<td>100</td>
<td>150</td>
<td>200</td>
</tr>
<tr>
<td>Maximum RMS voltage</td>
<td>V_{RMS}</td>
<td>28</td>
<td>42</td>
<td>70</td>
<td>105</td>
<td>140</td>
</tr>
<tr>
<td>Maximum DC blocking voltage</td>
<td>V_{DC}</td>
<td>40</td>
<td>60</td>
<td>100</td>
<td>150</td>
<td>200</td>
</tr>
<tr>
<td>Maximum average forward rectified current</td>
<td>I_{FMV}</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load</td>
<td>I_{FSM}</td>
<td></td>
<td>80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum instantaneous forward voltage (Note 1) @ 3 A</td>
<td>V_F</td>
<td>0.55</td>
<td>0.70</td>
<td>0.85</td>
<td>0.95</td>
<td></td>
</tr>
<tr>
<td>Maximum reverse current @ rated V_R</td>
<td>I_{R}</td>
<td>200</td>
<td>20</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typical thermal resistance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R_{eJL}</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R_{eJA}</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating junction temperature range</td>
<td>T_J</td>
<td>-55 to +125</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage temperature range</td>
<td>T_{STG}</td>
<td>-55 to +125</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1: Pulse test with PW=300μs, 1% duty cycle
**SS34LW - SS320LW**
Taiwan Semiconductor

### ORDERING INFORMATION

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>PART NO. SUFFIX</th>
<th>PACKING CODE</th>
<th>PACKING CODE SUFFIX</th>
<th>PACKAGE</th>
<th>PACKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS3xLW</td>
<td>(Note 1, 2)</td>
<td>H</td>
<td>RV</td>
<td>G</td>
<td>SOD-123W 3,000 / 7” Plastic reel</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Q</td>
<td></td>
<td>10,000 / 13” Paper reel</td>
</tr>
</tbody>
</table>

Note 1: “x” defines voltage from 40V (SS34LW) to 200V (SS320LW)

Note 2: Whole series with green compound (halogen-free)

### EXAMPLE

<table>
<thead>
<tr>
<th>EXAMPLE P/N</th>
<th>PART NO.</th>
<th>PART NO. SUFFIX</th>
<th>PACKING CODE</th>
<th>PACKING CODE SUFFIX</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS34LWHRVG</td>
<td>SS34LW</td>
<td>H</td>
<td>RV</td>
<td>G</td>
<td>AEC-Q101 qualified Green compound</td>
</tr>
</tbody>
</table>

### RATINGS AND CHARACTERISTICS CURVES (T_A=25°C unless otherwise noted)

**FIG. 1 FORWARD CURRENT DERATING CURVE**

- Average forward current (A) vs. lead temperature (°C)
- SS36LW – SS320LW
- SS34LW
- Resistive or inductive load

**FIG. 2 TYPICAL FORWARD CHARACTERISTICS**

- Instantaneous forward current (A) vs. forward voltage (V)
- Pulse width=300μs
- 1% duty cycle
- SS310LW

**FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

- Peak forward surge current (A) vs. number of cycles at 60 Hz
- 8.3ms single half sine wave

**FIG. 4 TYPICAL REVERSE CHARACTERISTICS**

- Instantaneous reverse current (mA) vs. percent of rated peak reverse voltage (%)
- TJ=125°C
- TJ=25°C

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### PACKAGE OUTLINE DIMENSIONS

**DIM.** | Unit (mm) | Unit (inch)
---|---|---
A | 1.4 | 0.055
B | 1.2 | 0.047
C | 3.1 | 0.122
D | 1.9 | 0.075
E | 4.3 | 0.169

### SUGGESTED PAD LAYOUT

### MARKING DIAGRAM

- **P/N** = Marking Code
- **YW** = Date Code
- **F** = Factory Code
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