Schottky barrier diode

● Application
Rectifying small power

● Features
1) Ultra small mold type.
2) Low $V_f$
3) High reliability
4) S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

● Construction
Silicon epitaxial planer

We declare that the material of product compliance with RoHS requirements.
We declare that the material of product is Halogen Free (Green Epoxy Compound).

● Absolute maximum ratings (Ta=25°C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Limits</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse voltage (DC)</td>
<td>$V_R$</td>
<td>30</td>
<td>V</td>
</tr>
<tr>
<td>Average rectified forward current</td>
<td>$I_o$</td>
<td>100</td>
<td>mA</td>
</tr>
<tr>
<td>Forward current surge peak (60Hz·1cyc)</td>
<td>$I_{FSM}$</td>
<td>500</td>
<td>mA</td>
</tr>
<tr>
<td>Junction temperature</td>
<td>$T_j$</td>
<td>125</td>
<td>℃</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>$T_{stg}$</td>
<td>-40 to +125</td>
<td>℃</td>
</tr>
</tbody>
</table>

● Electrical characteristics (Ta=25°C)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Unit</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward voltage</td>
<td>$V_F$</td>
<td>-</td>
<td>-</td>
<td>0.35</td>
<td>V</td>
<td>$I_F=10mA$</td>
</tr>
<tr>
<td>Reverse current</td>
<td>$I_R$</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>µA</td>
<td>$V_R=10V$</td>
</tr>
</tbody>
</table>

● Ordering Information

<table>
<thead>
<tr>
<th>Device</th>
<th>Marking</th>
<th>Shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSGD101G</td>
<td>F</td>
<td>4000/Tape&amp;Reel</td>
</tr>
</tbody>
</table>
RSGD101G

Electrical characteristic curves (Ta=25°C)

Forward Voltage (VF(mV))

Forward Current (IF(mA))

Reverse Current (IR(uA))

Reverse Voltage (VR(V))

Capacitance Between Terminals (Ct(pF))

VF Dispersion Map

IR Dispersion Map

Ct Dispersion Map

Peak Surge Forward Current (IFSM(A))

Number of Cycles (IFSM-Cycle Characteristics)

Time (t(ms))

Rth(t-a)

Rth(t-c)

IM=10mA IF=100mA

300us

Mounted on epoxy board

DC

D=1/2 Sin(θ=180)

DC

D=1/2 Sin(θ=180)

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AMBIENT TEMPERATURE: $Ta(\degree C)$

Derating Curve $Io-Ta$

AVERAGE RECTIFIED FORWARD CURRENT: $Io(A)$

CASE TEMPERATURE: $Tc(\degree C)$

Derating Curve $Io-Tc$

$\sin(\theta=180)$

$DC$

$D=1/2$

$Tt=125 \degree C$

$VR=15V$

$Io$

$0V$

$D=t/Tt$
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RSGD101G
SOD−723

NOTES:
2. CONTROLLING DIMENSION: MILLIMETER.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

<table>
<thead>
<tr>
<th>DIM</th>
<th>MIN</th>
<th>NOM</th>
<th>MAX</th>
<th>MIN</th>
<th>NOM</th>
<th>MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.49</td>
<td>0.52</td>
<td>0.55</td>
<td>0.019</td>
<td>0.020</td>
<td>0.022</td>
</tr>
<tr>
<td>b</td>
<td>0.25</td>
<td>0.28</td>
<td>0.32</td>
<td>0.0098</td>
<td>0.011</td>
<td>0.013</td>
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<tr>
<td>c</td>
<td>0.05</td>
<td>0.12</td>
<td>0.15</td>
<td>0.0028</td>
<td>0.004</td>
<td>0.0059</td>
</tr>
<tr>
<td>D</td>
<td>0.95</td>
<td>1.00</td>
<td>1.05</td>
<td>0.037</td>
<td>0.039</td>
<td>0.041</td>
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<tr>
<td>E</td>
<td>0.55</td>
<td>0.60</td>
<td>0.65</td>
<td>0.022</td>
<td>0.024</td>
<td>0.026</td>
</tr>
<tr>
<td>L</td>
<td>0.15</td>
<td>0.20</td>
<td>0.25</td>
<td>0.006</td>
<td>0.0079</td>
<td>0.010</td>
</tr>
</tbody>
</table>

SOLDERING FOOTPRINT

SCALE 10:1