SHINDENGEN
General Purpose Rectifiers

OUTLINE DIMENSIONS
Case: 1N
Unit: mm

FEATURES
- Small Dual In-Line (DIL) Package
- 5 mm pitch between terminals
- Applicable to Automatic Insertion

APPLICATION
- Switching power supply
- Home Appliances, Office Equipment
- Telecommunication, Factory Automation

RATINGS

<table>
<thead>
<tr>
<th>Item</th>
<th>Symbol</th>
<th>Conditions</th>
<th>Ratings</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature</td>
<td></td>
<td></td>
<td>Tstg</td>
<td>-40°C to +150°C</td>
</tr>
<tr>
<td>Operating Junction Temperature</td>
<td></td>
<td></td>
<td>Tj</td>
<td>150°C</td>
</tr>
<tr>
<td>Maximum Reverse Voltage</td>
<td>Vrm</td>
<td></td>
<td>200 V</td>
<td></td>
</tr>
<tr>
<td>Average Rectified Forward Current</td>
<td>Io</td>
<td>50Hz sine wave, R-load, On glass-epoxy substrate, Ta=25°C</td>
<td>1 A</td>
<td></td>
</tr>
<tr>
<td>Peak Surge Forward Current</td>
<td>Ifsm</td>
<td>50Hz sine wave, Non-repetitive 1 cycle peak value, Tj=25°C</td>
<td>30 A</td>
<td></td>
</tr>
<tr>
<td>Current Squared Time</td>
<td>I^2t</td>
<td>1ms ≤ t ≤ 10ms, Tj=25°C</td>
<td>4.5 A</td>
<td></td>
</tr>
</tbody>
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<tbody>
<tr>
<td>Forward Voltage</td>
<td>Vf</td>
<td>I=0.5A, Pulse measurement, Rating of per diode</td>
<td>Max. 1.05 V</td>
<td></td>
</tr>
<tr>
<td>Reverse Current</td>
<td>Ir</td>
<td>VR=VRM, Pulse measurement, Rating of per diode</td>
<td>Max. 10 mA</td>
<td></td>
</tr>
<tr>
<td>Thermal Resistance</td>
<td>JR</td>
<td></td>
<td>Max. 15°C/W</td>
<td></td>
</tr>
<tr>
<td>Junction to Ambient</td>
<td>Ja</td>
<td></td>
<td>Max. 68°C/ W</td>
<td></td>
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</tbody>
</table>

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S1NBx Forward Voltage

Forward Voltage $V_F$ [V]

Forward Current $I_F$ [A]

$T_l=150°C$ [TYP]

$T_l=25°C$ [TYP]

Pulse measurement per diode
S1NBx  Forward Power Dissipation

Tj = 150°C
Sine wave
Ambient Temperature $T_a$ [°C]

Average Rectified Forward Current $I_o$ [A]

S1NBx Derating Curve

Glass-epoxy substrate
Soldering land 9mmφ
Conductor layer 35µm

Sine wave
R-load
Free in air
Peak Surge Forward Current $I_{FSM}$ non-repetitive, sine wave, $T_j=25^\circ C$ before surge current is applied.