1N5400 THRU 1N5408
GENERAL PURPOSE SILICON RECTIFIER
Reverse Voltage - 50 to 1000 Volts  Forward Current - 3.0 Amperes

**FEATURES**

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
  250°C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension

**MECHANICAL DATA**

**Case:** JEDEC DO-201AD molded plastic body
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
**Polarity:** Color band denotes cathode end
**Mounting Position:** Any
**Weight:** 0.04 ounce, 1.10 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

<table>
<thead>
<tr>
<th>SYMBOLS</th>
<th>1N5400</th>
<th>1N5401</th>
<th>1N5402</th>
<th>1N5403</th>
<th>1N5404</th>
<th>1N5405</th>
<th>1N5406</th>
<th>1N5407</th>
<th>1N5408</th>
<th>UNITS</th>
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</thead>
<tbody>
<tr>
<td>Maximum repetitive peak reverse voltage</td>
<td>V_{RRM}</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>400</td>
<td>500</td>
<td>600</td>
<td>800</td>
<td>1000</td>
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<tr>
<td>Maximum RMS voltage</td>
<td>V_{RMS}</td>
<td>35</td>
<td>70</td>
<td>140</td>
<td>210</td>
<td>280</td>
<td>350</td>
<td>420</td>
<td>560</td>
<td>700</td>
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<tr>
<td>Maximum DC blocking voltage</td>
<td>V_{DC}</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>400</td>
<td>500</td>
<td>600</td>
<td>800</td>
<td>1000</td>
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<tr>
<td>Maximum average forward rectified current 0.375&quot;(9.5mm) lead length at T_A=75°C</td>
<td>I_{AV}</td>
<td>3.0</td>
<td>Amps</td>
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<tr>
<td>Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)</td>
<td>I_{FSM}</td>
<td>100</td>
<td>Amps</td>
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<tr>
<td>Maximum instantaneous forward voltage at 3.0A</td>
<td>V_f</td>
<td>1.2</td>
<td>Volts</td>
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<tr>
<td>Maximum DC reverse current at rated DC blocking voltage T_A=25°C</td>
<td>I_R</td>
<td>10.0</td>
<td>250.0</td>
<td>uA</td>
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<tr>
<td>Typical junction capacitance (NOTE 1)</td>
<td>C_J</td>
<td>30.0</td>
<td>pF</td>
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<tr>
<td>Typical thermal resistance (NOTE 2)</td>
<td>R_QJA</td>
<td>20.0</td>
<td>°C/W</td>
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<tr>
<td>Operating junction and storage temperature range</td>
<td>T_J, T_STG</td>
<td>-65 to +175</td>
<td>°C</td>
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**Note:**
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length, P.C.B. mounted

Note: Specification is subject to change without further notice. For more details and updates, please visit our website.
Fig. 1 - Forward Current Derating Curve

Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

Fig. 3 - Typical Instantaneous Forward Characteristics

Fig. 4 - Typical Reverse Characteristics

Fig. 5 - Typical Junction Capacitance

Fig. 6 - Typical Transient Thermal Impedance

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