FR201 THRU FR207

FAST RECOVERY RECTIFIERS
Reverse Voltage - 50 to 1000 Volts  Forward Current - 2.0 Amperes

FEATURES
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- 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-15 molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.014 ounce, 0.40 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>
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<th>UNITS</th>
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<tbody>
<tr>
<td>Maximum repetitive peak reverse voltage</td>
<td>V_{RRM}</td>
<td>FR 201</td>
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<tr>
<td>Maximum RMS voltage</td>
<td>V_{RMS}</td>
<td>50</td>
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<tr>
<td>Maximum DC blocking voltage</td>
<td>V_{DC}</td>
<td>35</td>
</tr>
<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>2.0</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>50.0</td>
</tr>
<tr>
<td>Maximum instantaneous forward voltage at 2.0A</td>
<td>V_F</td>
<td>1.3</td>
</tr>
<tr>
<td>Maximum DC reverse current at rated DC blocking voltage T_A=25°C</td>
<td>I_R</td>
<td>5.0</td>
</tr>
<tr>
<td>Maximum reverse recovery time (NOTE 1)</td>
<td>t_{rr}</td>
<td>150</td>
</tr>
<tr>
<td>Typical junction capacitance (NOTE 2)</td>
<td>C_J</td>
<td>40.0</td>
</tr>
<tr>
<td>Typical thermal resistance (NOTE 3)</td>
<td>R_{QJA}</td>
<td>40.0</td>
</tr>
<tr>
<td>Operating junction and storage temperature range</td>
<td>T_J,T_{STG}</td>
<td>-65 to +150</td>
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</tbody>
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Note: 1. Reverse recovery condition I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B. mounted
RATINGS AND CHARACTERISTIC CURVES FR201 THRU FR207

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

Note: Specification is subject to change without further notice. For more details and updates, please visit our website.