### Features
- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

### Application
- Automotive Inverters and Solar Inverters
- Plating Power Supply, SMPS and UPS
- Car Audio Amplifiers and Sound Device Systems

### Mechanical Data
- Case: ITO-220AB full plastic isolated package
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-202 method 208
- Polarity: As marked on diode body
- Mounting position: Any
- Weight: 1.75 gram approximately

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

**Rating at 25°C ambient temperature unless otherwise specified.**

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>F10P20FS</th>
<th>F10P40FS</th>
<th>F10P60FS</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Recurrent Peak Reverse Voltage (VRRM)</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>V</td>
</tr>
<tr>
<td>Maximum RMS Voltage (VRMS)</td>
<td>140</td>
<td>280</td>
<td>420</td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC Blocking Voltage (VDC)</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>V</td>
</tr>
<tr>
<td>Maximum Average Forward Rectified Current @ Tc=100°C (Total Device 2.5A~10A) (IF(AV))</td>
<td>10.0</td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) (IFSM)</td>
<td>150</td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Maximum Instantaneous Forward Voltage @ 5.0 A (Both Diode/Per Diode/Per Leg) (VF)</td>
<td>0.98</td>
<td>1.3</td>
<td>1.7</td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC Reverse Current @ Tc=25°C (At Rated DC Blocking Voltage @ Tc=125°C) (IR)</td>
<td>5.0</td>
<td></td>
<td></td>
<td>μA</td>
</tr>
<tr>
<td>Maximum Reverse Recovery Time (Note 1) (Trr)</td>
<td>35</td>
<td></td>
<td></td>
<td>ns</td>
</tr>
<tr>
<td>Typical junction Capacitance (Note 2) (CJ)</td>
<td>65</td>
<td></td>
<td></td>
<td>pF</td>
</tr>
<tr>
<td>Typical Thermal Resistance (Note 3) (RJC)</td>
<td>3.0</td>
<td></td>
<td></td>
<td>°C/W</td>
</tr>
<tr>
<td>Operating Junction and Storage Temperature Range (TJ, TSTG)</td>
<td>-55 to +150</td>
<td></td>
<td></td>
<td>°C</td>
</tr>
</tbody>
</table>

**NOTES:**
1. Reverse recovery test conditions If = 0.5A, Ir = 1.0A, Irr = 0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
3. Thermal Resistance junction to case.
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

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