## 11DQ03 - 11DQ10

**PRV : 30 - 100 Volts**  
**I₀ : 1.1 Ampere**

### FEATURES :
- High current capability
- High surge current capability
- High reliability
- High efficiency
- Low power loss
- Low forward voltage drop
- Low cost
- Pb / RoHS Free

### MECHANICAL DATA : 
- Case : DO-41 Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.339 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

<table>
<thead>
<tr>
<th>RATING</th>
<th>SYMBOL</th>
<th>11DQ03</th>
<th>11DQ04</th>
<th>11DQ05</th>
<th>11DQ06</th>
<th>11DQ09</th>
<th>11DQ10</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Recurrent Peak Reverse Voltage</td>
<td>V_RRM</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>90</td>
<td>100</td>
<td>V</td>
</tr>
<tr>
<td>Maximum RMS Voltage</td>
<td>V_RMS</td>
<td>21</td>
<td>28</td>
<td>35</td>
<td>42</td>
<td>63</td>
<td>70</td>
<td>V</td>
</tr>
<tr>
<td>Maximum DC Blocking Voltage</td>
<td>V_DC</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>90</td>
<td>100</td>
<td>V</td>
</tr>
<tr>
<td>Maximum Average Forward Current at Ambient Temperature</td>
<td>I_F(AV)</td>
<td>1.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Maximum Peak Forward Surge Current single half sine wave superimposed on rated load</td>
<td>I_FSM</td>
<td>42</td>
<td>26</td>
<td>42</td>
<td></td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Maximum Forward Voltage at I_r = 1.1 A</td>
<td>V_F</td>
<td>0.52</td>
<td>0.56</td>
<td>0.74</td>
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<td></td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>Maximum Reverse Current at Rated DC Blocking Voltage T_J = 125 °C</td>
<td>I_R</td>
<td>6</td>
<td>11</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>mA</td>
</tr>
<tr>
<td>Junction Temperature Range</td>
<td>T_J</td>
<td></td>
<td>- 40 to + 125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>°C</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>T_STG</td>
<td></td>
<td>- 65 to + 150</td>
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<td></td>
<td>°C</td>
</tr>
</tbody>
</table>
RATING AND CHARACTERISTIC CURVES (11DQ03 - 11DQ10)

**FIG. 1 - FORWARD CURRENT DERATING CURVE**

- **Average Forward Current, Amperes**
- **Ambient Temperature, °C**

**FIG. 2 - MAXIMUM FORWARD SURGE CURRENT**

- **Peak Forward Surge Current, Amperes**
- **Number of Cycles at 60Hz**

**FIG. 3 - TYPICAL FORWARD CHARACTERISTICS**

- **Forward Current, Amperes**
- **Forward Voltage, Volts**

**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**

- **Reverse Current, Milliamperes**
- **Percent of Rated Reverse Voltage, (%)**

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