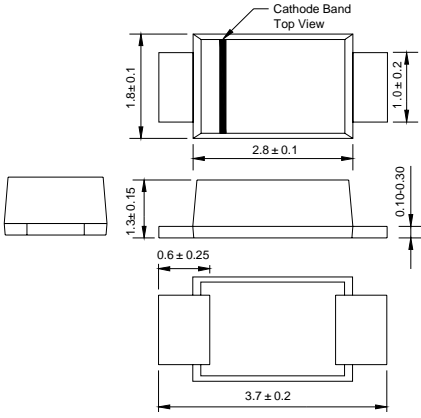
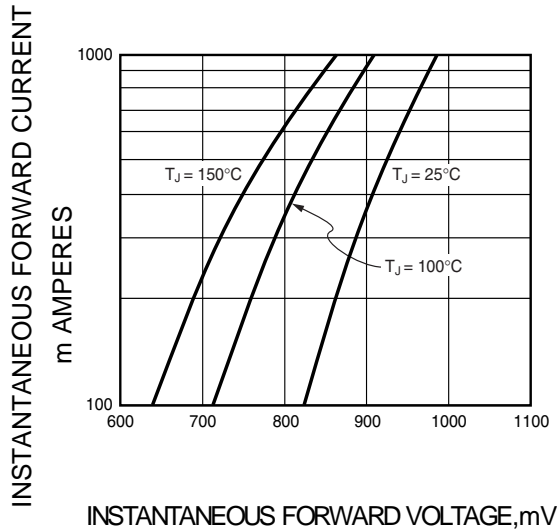


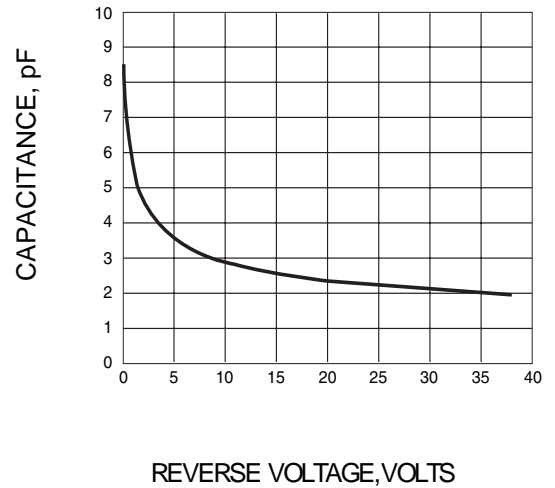
# SM4007PL

<p style="text-align: center;"><b>SOD-123FL</b></p>  <p style="text-align: center;">Dimensions in millimeters</p>	<p style="text-align: center;"><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>◆ Glass passivated device</li> <li>◆ Ideal for surface mounted applications</li> <li>◆ Low reverse leakage</li> <li>◆ Metallurgically bonded construction</li> <li>◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension</li> </ul>		
<p style="text-align: center;"><b>MECHANICAL DATA</b></p> <p><b>Case:</b> JEDEC SOD-123FL molded plastic body over passivated chip  <b>Terminals:</b> Solderable per MIL-STD-750, Method 2026  <b>Polarity:</b> Color band denotes cathode end  <b>Mounting Position:</b> Any  <b>Weight:</b> 0.0007 ounce, 0.02 grams</p>			
<p style="text-align: center;"><b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b></p>			
<p>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%.</p>			
<p>Catalog Number</p>	<p>SYMBOLS</p>	<p style="text-align: center;"><b>SM4007PL</b></p>	<p>UNITS</p>
<p>Maximum repetitive peak reverse voltage</p>	<p><math>V_{RRM}</math></p>	<p style="text-align: center;">1000</p>	<p>VOLTS</p>
<p>Maximum RMS voltage</p>	<p><math>V_{RMS}</math></p>	<p style="text-align: center;">700</p>	<p>VOLTS</p>
<p>Maximum DC blocking voltage</p>	<p><math>V_{DC}</math></p>	<p style="text-align: center;">1000</p>	<p>VOLTS</p>
<p>Maximum average forward rectified current at <math>T_A=65^\circ\text{C}</math> (NOTE 1)</p>	<p><math>I_{(AV)}</math></p>	<p style="text-align: center;">0.9</p>	<p>Amp</p>
<p>Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) <math>T_L=25^\circ\text{C}</math></p>	<p><math>I_{FSM}</math></p>	<p style="text-align: center;">25.0</p>	<p>Amps</p>
<p>Maximum instantaneous forward voltage at 1.0A</p>	<p><math>V_F</math></p>	<p style="text-align: center;">1.1</p>	<p>Volts</p>
<p>Maximum DC reverse current <math>T_A=25^\circ\text{C}</math> at rated DC blocking voltage <math>T_A=125^\circ\text{C}</math></p>	<p><math>I_R</math></p>	<p style="text-align: center;">10.0 50.0</p>	<p><math>\mu\text{A}</math></p>
<p>Typical junction capacitance (NOTE 2)</p>	<p><math>C_J</math></p>	<p style="text-align: center;">4</p>	<p>pF</p>
<p>Typical thermal resistance (NOTE 3)</p>	<p><math>R_{\theta JA}</math></p>	<p style="text-align: center;">180</p>	<p>K/W</p>
<p>Operating junction and storage temperature range</p>	<p><math>T_J, T_{STG}</math></p>	<p style="text-align: center;">-55 to +150</p>	<p><math>^\circ\text{C}</math></p>
<p><b>Note:</b> 1. Averaged over any 20ms period.          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</p>			

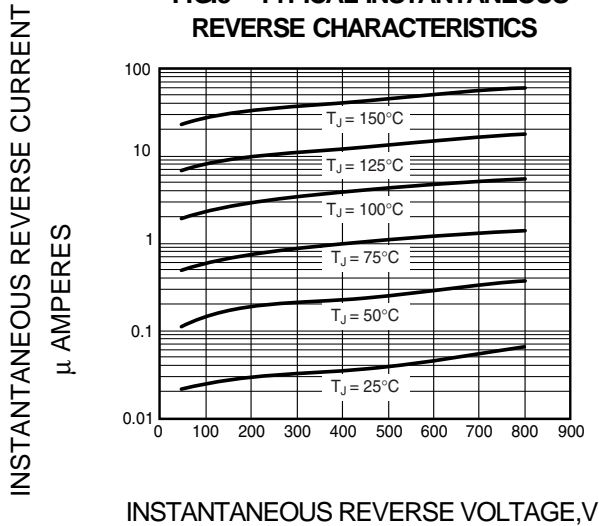
**FIG.1 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.2 – TYPICAL JUNCTION CAPACITANCE**



**FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS**



**FIG.4 – FORWARD DERATING CURVE**

