

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

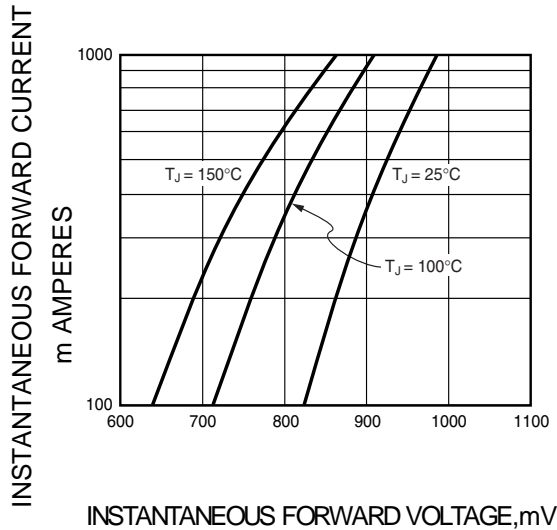


FIG.2 – TYPICAL JUNCTION CAPACITANCE

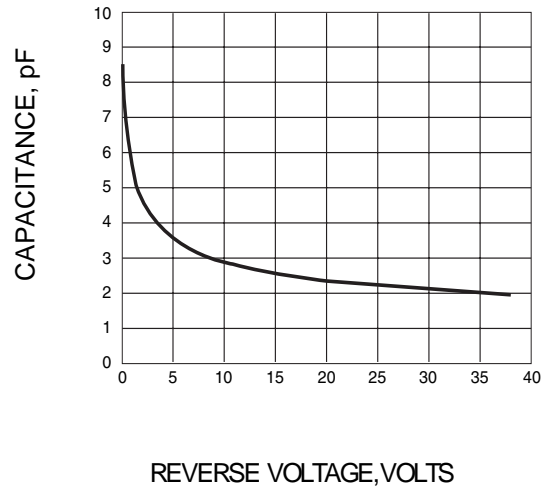


FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

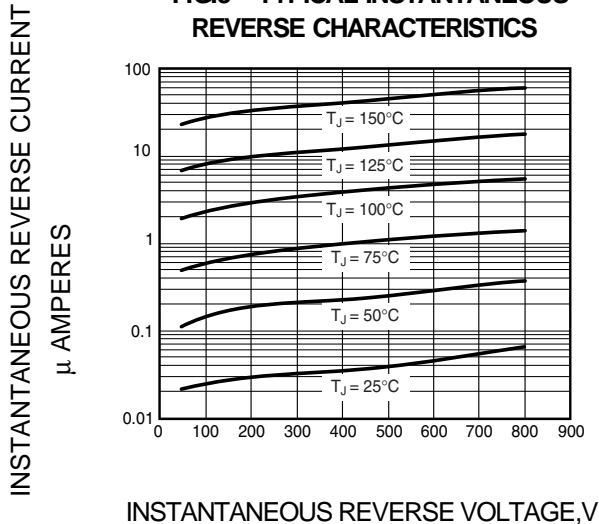


FIG.4 – FORWARD DERATING CURVE

