

1N4007W

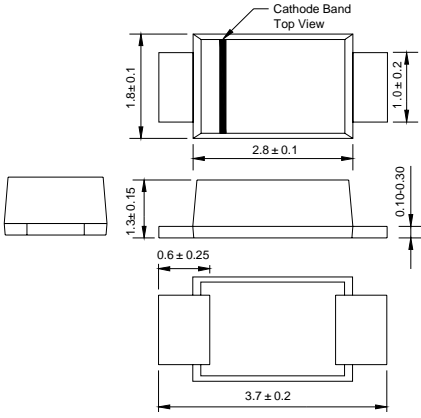
<u>SOD-123FL</u>		<u>FEATURES</u>	
 <p style="text-align: center;">Dimensions in millimeters</p>		<ul style="list-style-type: none"> ◆ Glass passivated device ◆ Ideal for surface mounted applications ◆ Low reverse leakage ◆ Metallurgically bonded construction ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension 	
		<u>MECHANICAL DATA</u>	
		<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>	
<u>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</u>			
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%.			
Catalog Number	SYMBOLS	1N4007W	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	1000	VOLTS
Maximum RMS voltage	V_{RMS}	700	VOLTS
Maximum DC blocking voltage	V_{DC}	1000	VOLTS
Maximum average forward rectified current at $T_A=65^\circ\text{C}$ (NOTE 1)	$I_{(AV)}$	1	Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=25^\circ\text{C}$	I_{FSM}	25.0	Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.1	Volts
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	10.0 50.0	μA
Typical junction capacitance (NOTE 2)	C_J	4	pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	180	K/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$
<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

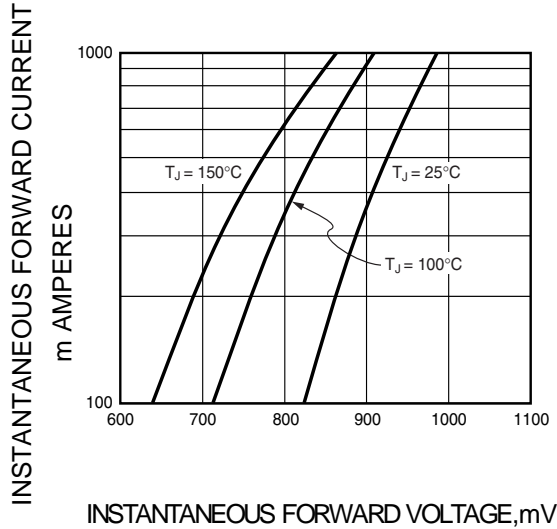


FIG.2 – TYPICAL JUNCTION CAPACITANCE

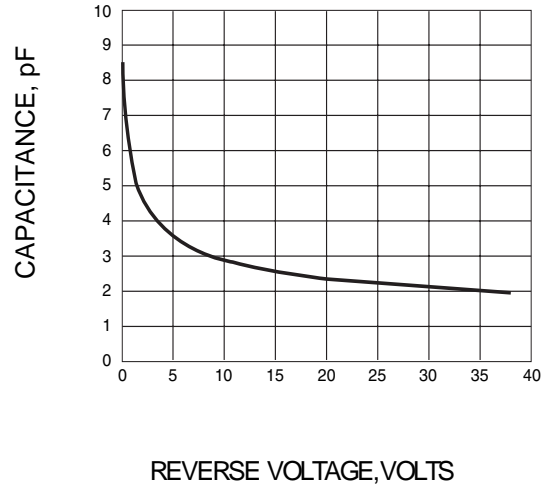


FIG.3 – TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

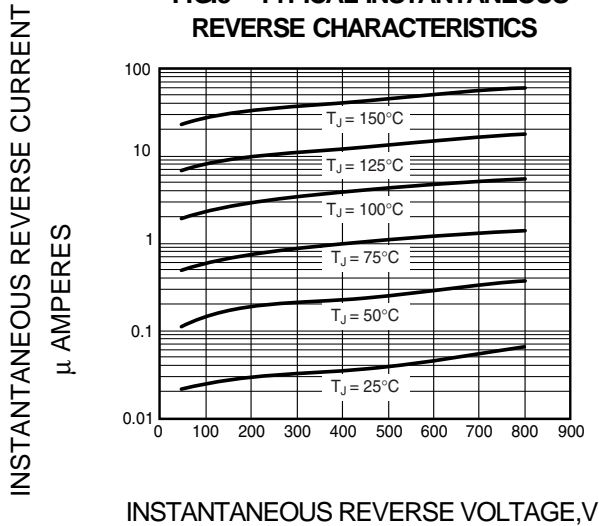


FIG.4 – FORWARD DERATING CURVE

