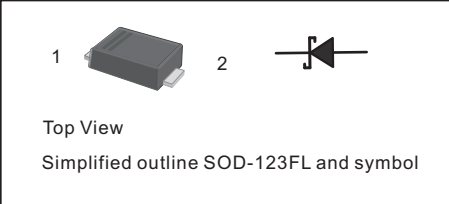


SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER	Reverse Voltage - 40 Volts Forward Current - 1.0 Ampere						
SOD-123FL PINNING <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>PIN</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">Cathode</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">Anode</td> </tr> </tbody> </table> <div style="text-align: center; margin-top: 10px;">  <p>Top View Simplified outline SOD-123FL and symbol</p> </div> <p style="text-align: center; margin-top: 20px;">Marking: S1</p>	PIN	DESCRIPTION	1	Cathode	2	Anode	Features <ul style="list-style-type: none"> ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 ◆ For surface mounted applications ◆ Built-in strain relief, ideal for automated placement ◆ Low reverse leakage ◆ High forward surge current capability ◆ High temperature soldering guaranteed 250°C/10 seconds at terminals Mechanical Data <p>Case : Molded plastic body Terminals : Solder plated, solderable per MIL-STD-750, Method 2026 Polarity : Polarity symbol marking on body Mounting Position : Any Weight : 0.0007 ounce, 0.02 grams</p>
PIN	DESCRIPTION						
1	Cathode						
2	Anode						

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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

Parameter	Symbols	CRS01	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30	A
Maximum Instantaneous Forward Voltage at 1 A	V_F	0.55	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25\text{ }^\circ\text{C}$ $T_a = 125\text{ }^\circ\text{C}$	I_R	0.5 50	mA
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	85	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +125	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

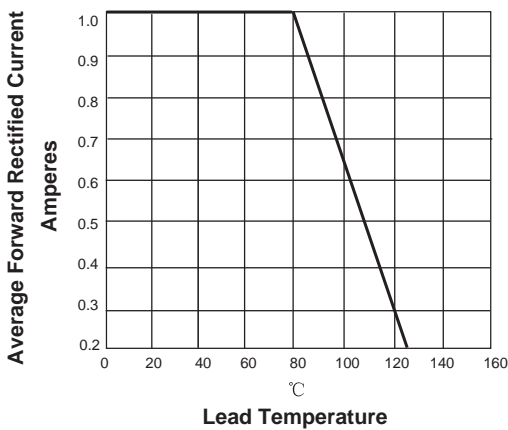


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

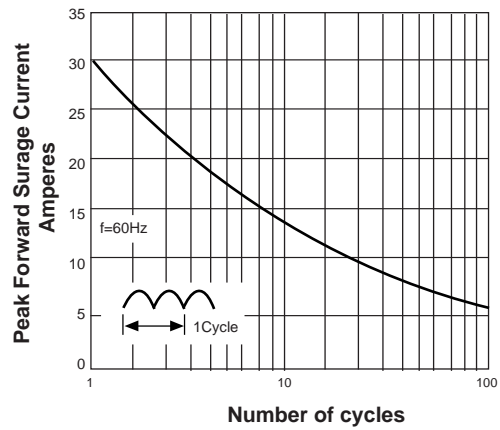


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

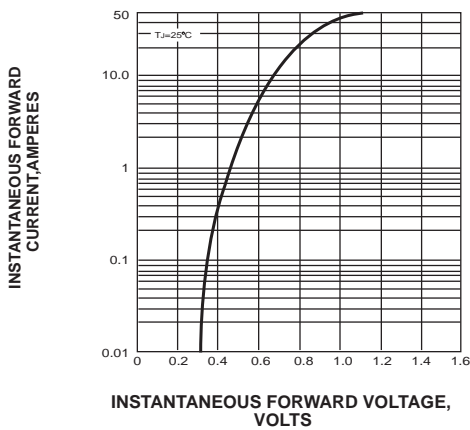
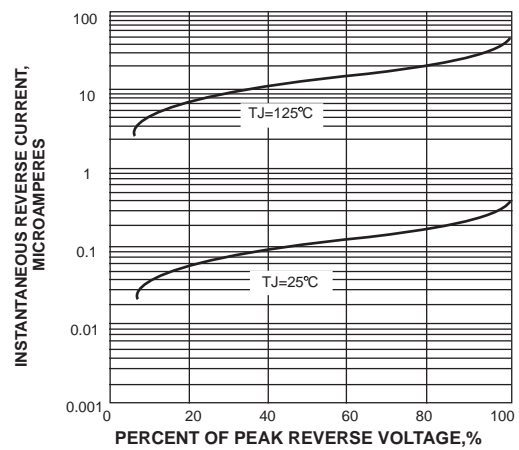


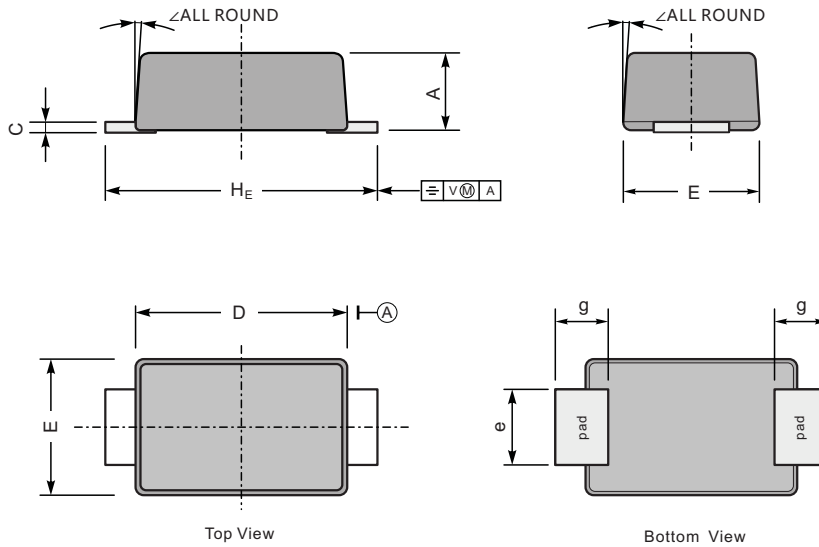
FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



UNIT		A	C	D	E	e	g	H _E	\angle
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size

