

## SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 50 - 75 Volts

**POWER** 410 - 500 mW

### FEATURES

- Fast switching Speed
- Electrically Identical to Standard JEDEC
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion
- Flat package SOD-123 in stead mini-MELF package.

### MECHANICAL DATA

Case: SOD-123, Plastic

Terminals: Solderable per MIL-STD-202, Method 208

Approx. Weight:0.01 gram


**SOD-123**

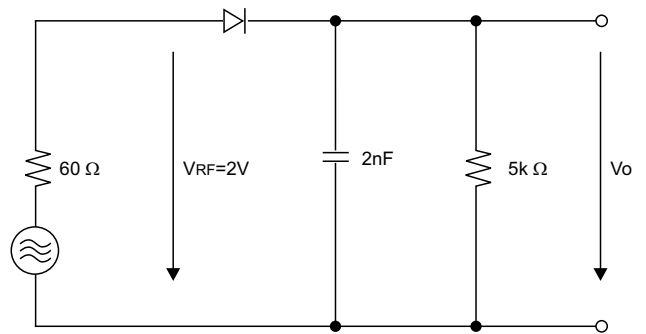
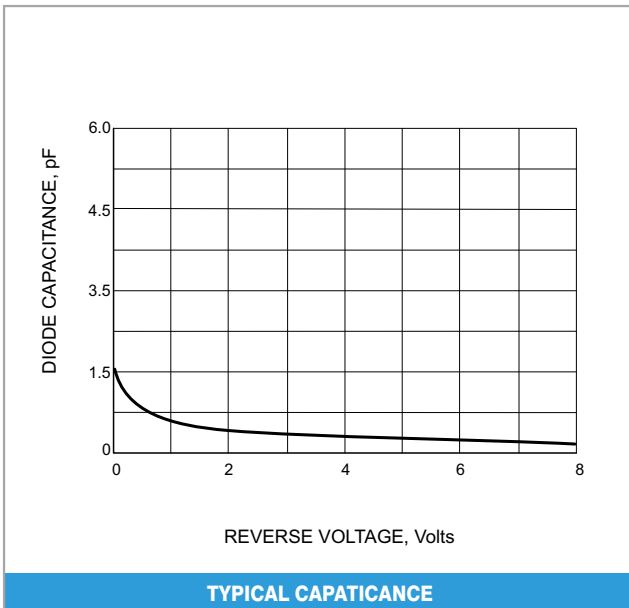
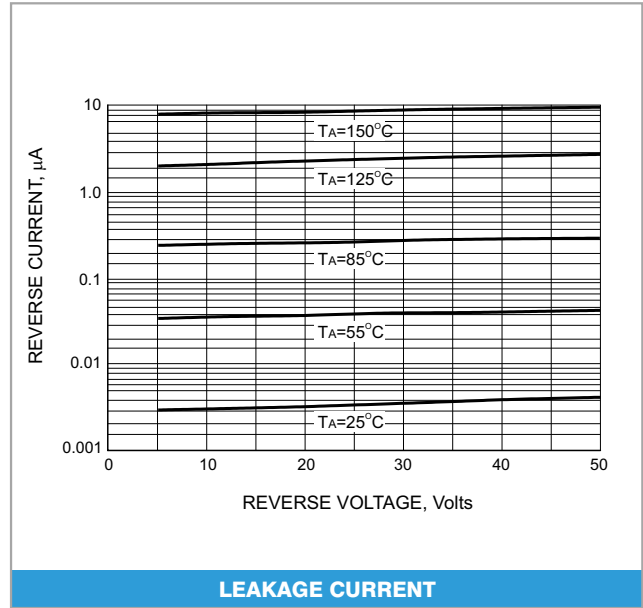
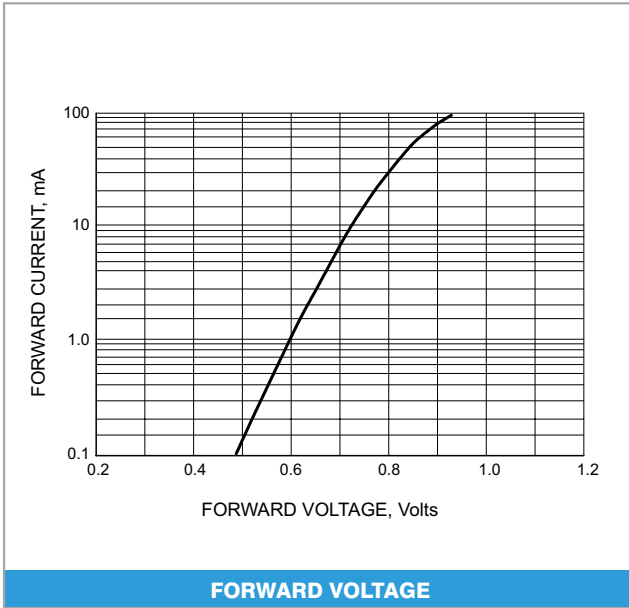
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	1N4150W	1N4151W	UNITS
Reverse Voltage	$V_R$	50	50	V
Peak Reverse Voltage	$V_{RM}$	50	75	V
Maximum RMS Voltage	$V_{RMS}$	25	35	V
Maximum DC Blocking Voltage	$V_{DC}$	50	50	V
Maximum Average Forward Current at $T_a=25^{\circ}C$	$I_{AV}$	200	150	mA
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	0.5	0.5	A
Power Dissipation Derate Above $25^{\circ}C$	$P_{TOT}$	410	500	mW
Maximum Forward Voltage @ $I_F=200$ mA @ $I_F=10$ mA	$V_F$	1.0 -	- 1.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J= 25^{\circ}C$	$I_R$	0.1	0.05	$\mu$ A
Typical Junction Capacitance( Notes1)	$C_J$	4.0	2.0	pF
Maximum Reverse Recovery (Notes2)	$T_{RR}$	4.0	2.0	ns
Maximum Thermal Resistance	$R_{\theta JA}$	450	450	$^{\circ}C / W$
Storage Temperature Range	$T_J$	-55 TO +125		$^{\circ}C$

**NOTE:**

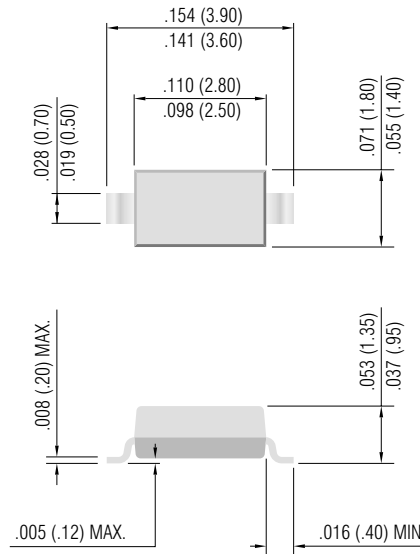
 1.  $C_J$  at  $V_R=0$ ,  $f=1$ MHZ

 2. From  $I_F=10$ mA to  $I_R=1$ mA,  $V_R=6$ Volts,  $R_L=100\Omega$



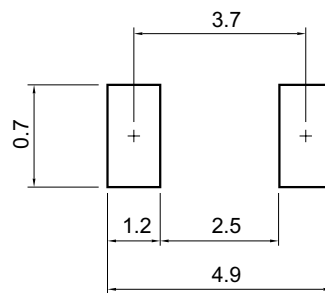
**RECTIFICATION EFFCENCY MEASUREMENT CIRCUIT**

SOD-123



Dimensions in inches and (millimeters)

**Suggested Mounting Pad Layout**



Dimensions in (millimeters)

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