

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

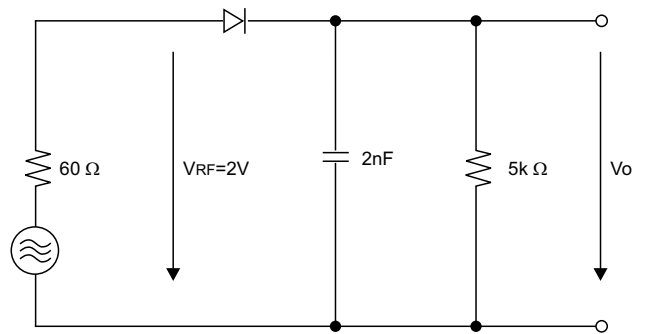
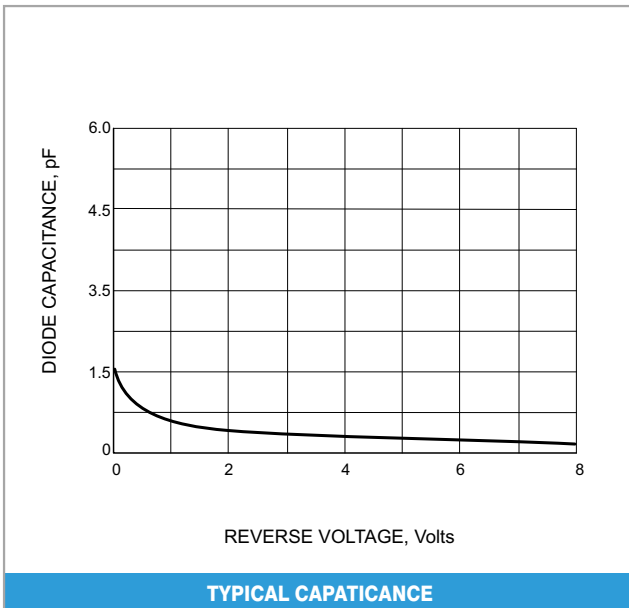
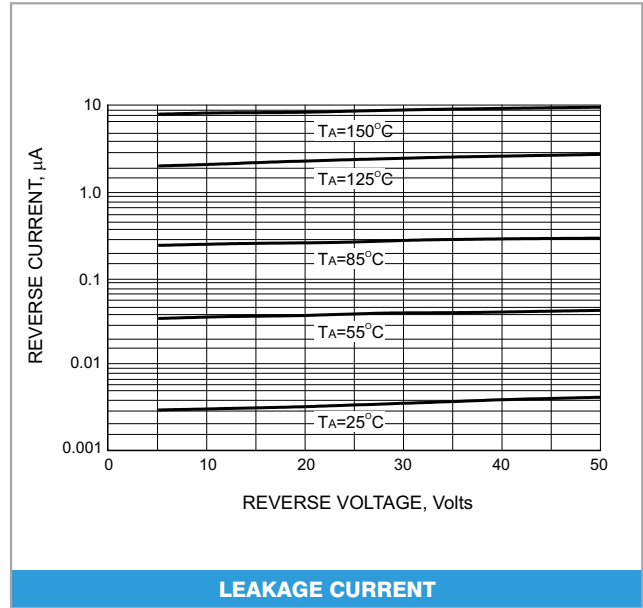
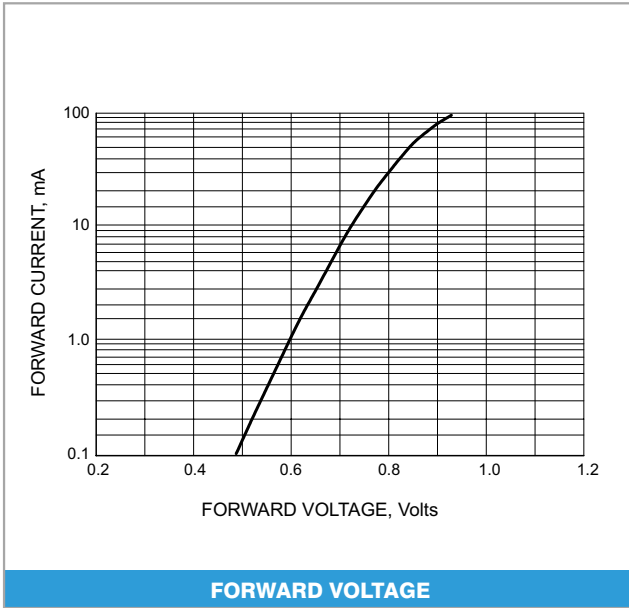
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| 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 | μ 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:

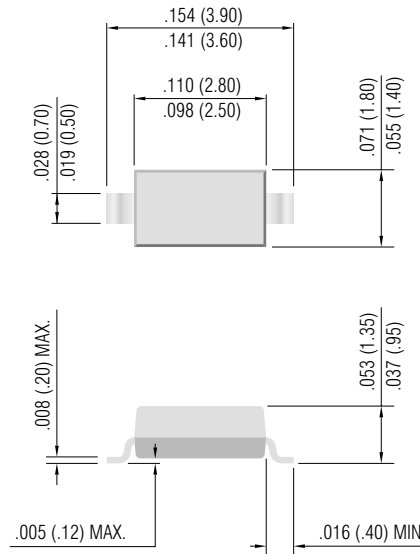
 1. C_J at $V_R=0$, $f=1$ MHZ

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



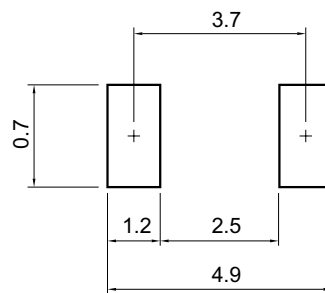
RECTIFICATION EFFCENCY MEASUREMENT CIRCUIT

SOD-123



Dimensions in inches and (millimeters)

Suggested Mounting Pad Layout



Dimensions in (millimeters)

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