



DATA SHEET

1N4151W

SURFACE MOUNT SWITCHING DIODES

SOD-123

Unit: inch (mm)

VOLTAGE

50 Volts

POWER

500 mWatts

FEATURES

- Fast switching Speed.
- Electrically Identical to Standard JEDEC
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion.

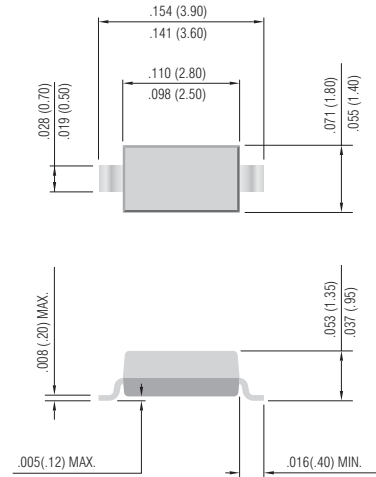
MECHANICAL DATA

Case: SOD-123 plastic case.

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

Standard packaging: 8mm tape

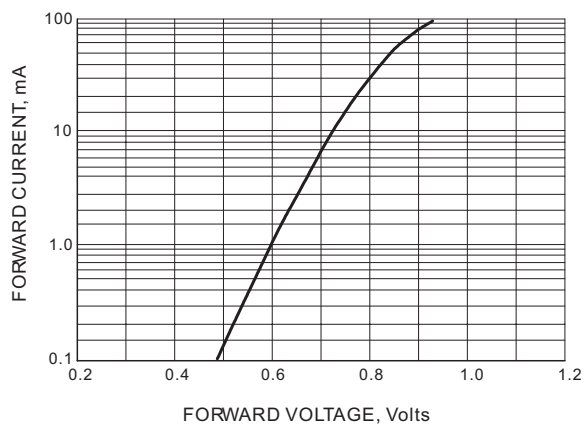
Weight: approximately 0.01g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ\text{C}$ unless otherwise noted)

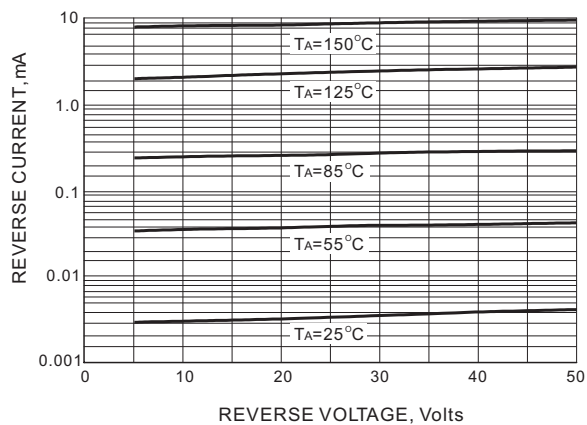
PARAMETER	SYMBOL	1N4151W	UNITS
Marking Code		A5	
Reverse Voltage	V_R	50	V
Peak Reverse Voltage	V_{RM}	75	V
Maximum RMS Voltage	V_{RMS}	35	V
Maximum DC Blocking Voltage	V_{DC}	50	V
Maximum Average Forward Current at $T_a = 25^\circ\text{C}$	I_{AV}	150	mA
Peak Forward Surge Current, 1.0s single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	0.5	A
Power Dissipation Derate Above 25°C	P_{TOT}	500	mW
Maximum Forward Voltage	V_F	1.0@0.01A	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^\circ\text{C}$	I_R	0.05	μA
Typical Junction Capacitance(Notes1)	C_J	2	pF
Maximum Reverse Recovery (Notes2)	T_{RR}	2	ns
Maximum Thermal Resistance	R_{qJA}	400	$^\circ\text{C} / \text{W}$
Storage Temperature Range	T_J		$^\circ\text{C}$

NOTE:

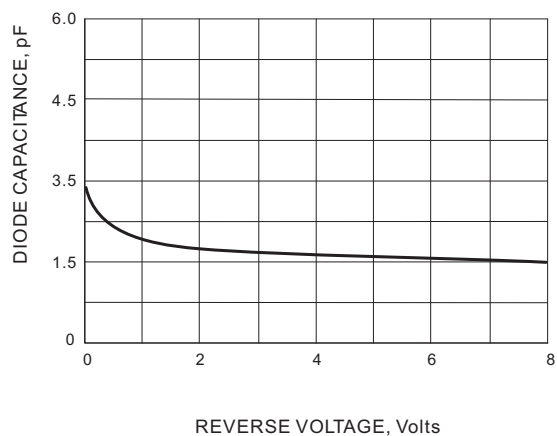
1. C_J at $V_R = 0$, $f = 1\text{MHz}$ 2. From $I_F = 10\text{mA}$ to $I_R = 1\text{mA}$, $V_R = 6\text{Volts}$, $R_L = 100\Omega$



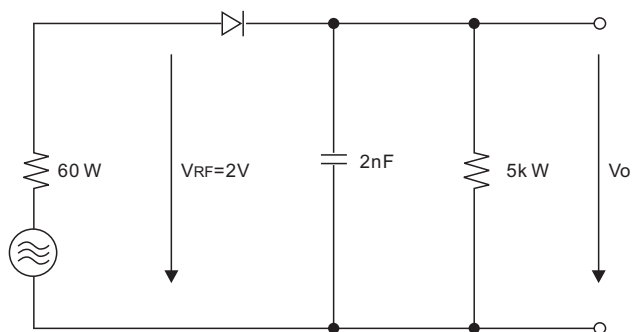
FORWARD VOLTAGE



LEAKAGE CURRENT



TYPICAL CAPATICANCE



RECTIFICATION EFFCIENCY MEASUREMENT CIRCUIT