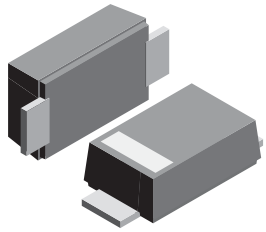
1N4150W - 1N4151W

SURFACE MOUNT FAST SWITCHING DIODE



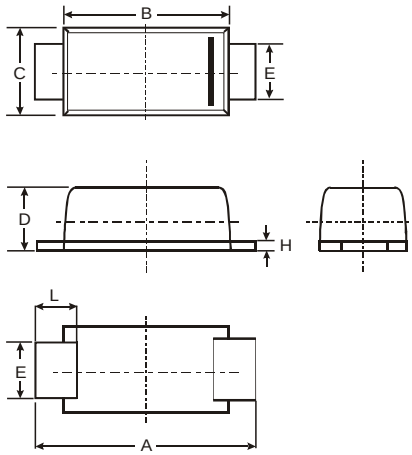
Features

- High Conductance
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Application

Mechanical Data

- Case: SOD-123FL
  plastic body over passivated junction
- Terminals: Plated axial leads,
- solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position : Any
- Weight:0.0007 ounce, 0.02 grams

RoHS COMPLIANT



SOD-123FL			
Dim	Min	Max	Typ
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
All Dimensions in mm			

Maximum Ratings @T_A=25°C unless otherwise specified

Characteristic	Symbol	1N4150W	1N4151W	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	50	75	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50		V
RMS Reverse Voltage	$V_{R(RMS)}$	35		V
Forward Continuous Current (Note 1)	I_{FM}	400	300	mA
Average Rectified Output Current (Note 1)	I_O	200	150	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I_{FSM}	4.0 1.0	2.0 0.5	A
Power Dissipation (Note 1)	P_d	410	500	mW
Typical Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	300		K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150		°C

Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	1N4150W	1N4151W	Unit
Forward Voltage Drop (Note 4)	V_{FM}	1.0		V
Peak Reverse Leakage Current @ V_R = 50V	I_{RM}	100	50	nA
Typical Junction Capacitance (V_R = 0V DC, f = 1.0MHz)	C_j	2.5	2.0	pF
Reverse Recovery Time (Note 2, 3)	t_{rr}	4.0	2.0	nS

Note: 1. Valid provided that terminals are kept at ambient temperature.
2. 1N4150W: Measured with I_F = I_R = 200mA, I_{RR} = 0.1 x I_R, R_L = 100Ω.
3. 1N4151W: Measured with I_F = I_R = 10mA, I_{RR} = 1.0 x I_R, R_L = 100Ω.
4. 1N4150W: Measured with I_F = 200mA. 1N4151W: Measured with I_F = 10mA