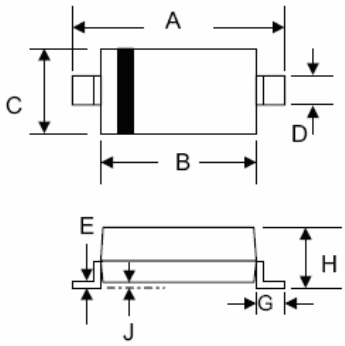
Technical Data *Green Products*

Data Sheet N0574, Rev. -

Features

- High Conductance
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Application
- Plastic Material – UL Recognition Flammability Classification 94V-O
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



SOD-123				
Dim	Min	Max	Min	Max
A	3.6	3.9	0.14	0.154
B	2.5	2.8	0.098	0.110
C	1.4	1.8	0.055	0.070
D	0.5	0.7	0.020	0.028
E	—	0.2	—	0.008
G	0.4	—	0.016	—
H	0.95	1.35	0.037	0.053
J	—	0.12	—	0.005
	In mm		In inch	

Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams (approx.)
- Marking: 1N4150W A4
  1N4151W A5

Maximum Ratings @T_A=25°C unless otherwise specified

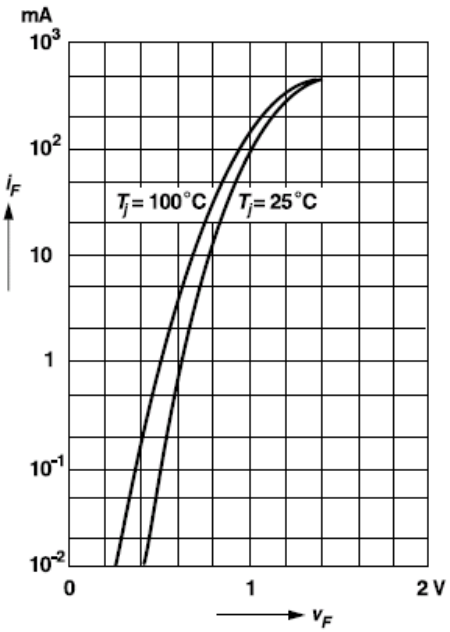
Characteristic	Symbol	1N4150W	1N4151W	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	50	75	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50		V
RMS Reverse Voltage	$V_{R(RMS)}$	35		V
Forward Continuous Current (Note 1)	I_{FM}	400	300	mA
Average 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

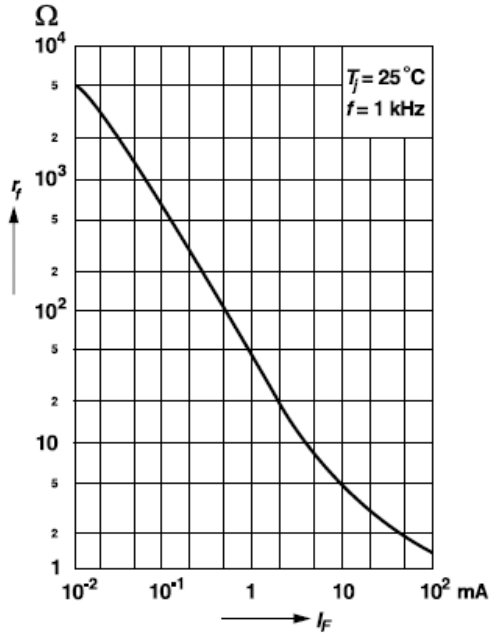
Characteristic	Symbol	1N4150W	1N4151W	Unit
Forward Voltage Drop (Note 4)	V_{FM}	1.0		V
Peak Reverse Leakage Current @ V_R = 50V	I_{RM}	100	50	nA
Typical Junction Capacitance (V_R = 0V DC, f = 1.0MHz)	C_j	2.5	2.0	pF
Reverse Recovery Time (Note 2, 3)	t_{rr}	4.0	2.0	nS

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

Forward characteristics

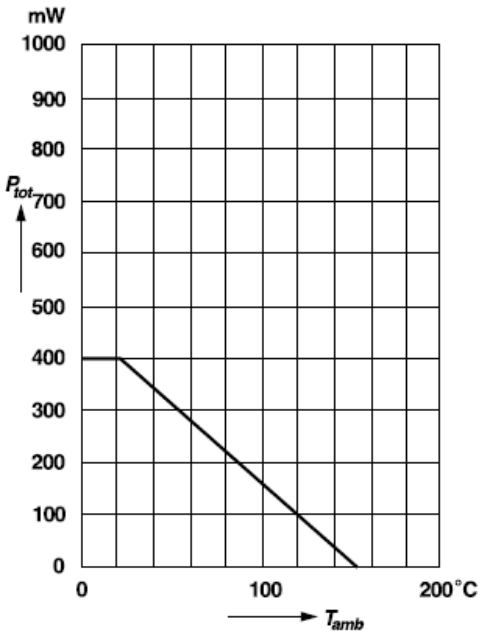


Dynamic forward resistance versus forward current

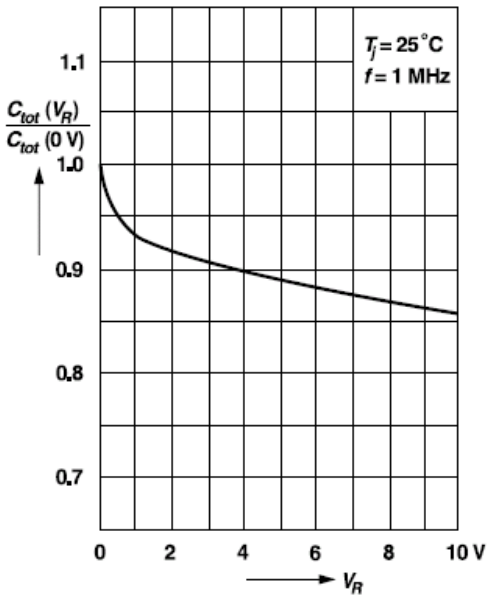


Admissible power dissipation versus ambient temperature

For conditions, see footnote in table "Absolute Maximum Ratings"



Relative capacitance versus reverse voltage



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