Micro Commercial Components
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1N4151W

Small Signal Switching Diode 75 Volts

Features

- Sillcon Epitaxial Planar Diode
- Fast switching diode
- This diode is also available in other case styles including the DO-35 case with the type designation 1N4151, and the MiniMELF case with the type disignation DL4151

Maximum Ratings

Symbol	Rating	Value	Unit
V_R	Reverse Voltage	50	V
V_{RRM}	Peak Reverse Voltage	75	V
$I_{F(AV)}$	Average Rectified Forward Current (1)	150	mA
I_{FSM}	Surge Forward Current at t<1s and Tj=25^{O}C	500	mA
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55~+150	^{O}C

Thermal Characteristics

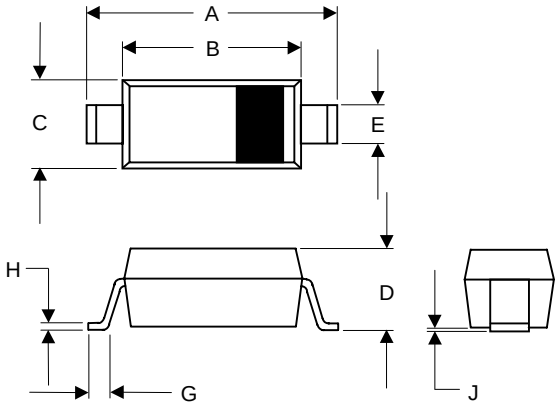
Symbol	Characteristic	Value	Unit
P_D	Power Dissipation at T_{amb}=25^{O}C	410	mW
R_{JA}	Thermal Resistance, Junction to Ambient	450	^{O}C /W

Electrical Characteristics @ 25^{O}C Unless Otherwise Noted

Symbol	Characteristic	Min	Max	Unit
V_F	Forward Voltage (I_F=50mAdc)	---	1.0	Vdc
I_R	Leakage Current (V_R=50Vdc) (V_R=20Vdc, T_A=150^{O}C)	--- ---	50 50	nA uA
$V_{(BR)R}$	Reverse Breakdown Voltage (I_R=5.0uAdc)	75	---	V
C_T	Total Capacitance (V_R=V_F=0)	---	2.0	pF
T_{rr1}	Reverse Recovery Time (I_F=I_R=10mAdc, I_{rr}=1.0mAdc) (I_F=10mAdc, R_L=100OHMS, V_R=6.0Vdc)	---	4.0 2.0	ns
ηv	Rectification Efficiency (f=100MHz, V_{RF}=2.0Vdc)	0.45	---	---

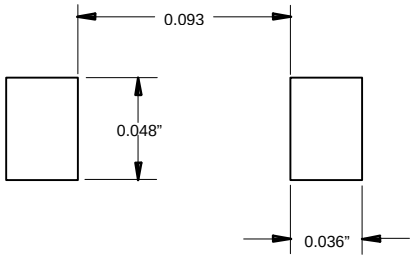
(1) Valid provided that electrodes are kept at ambient temperature.

SOD123

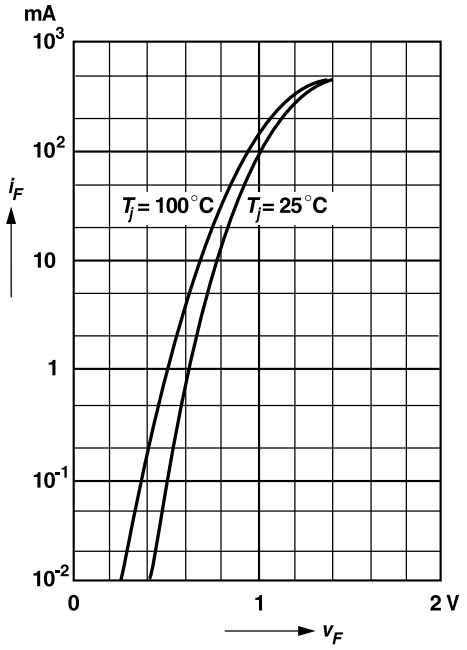


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

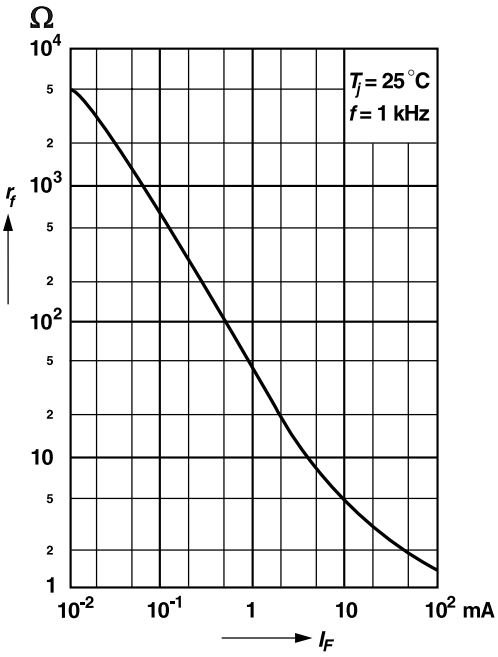
SUGGESTED SOLDER PAD LAYOUT



Forward characteristics

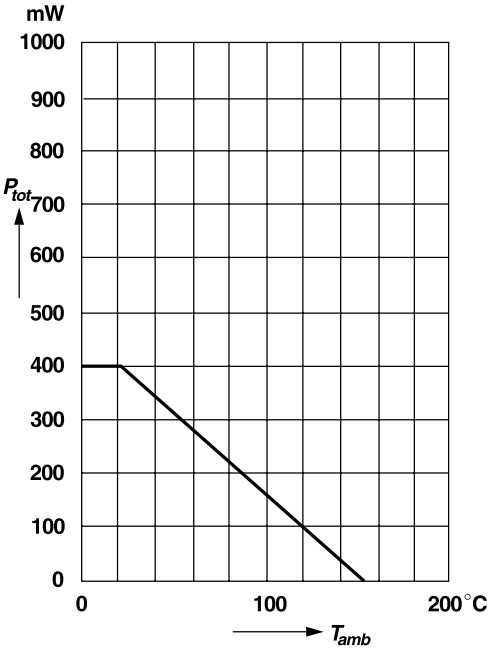


Dynamic forward resistance versus forward current

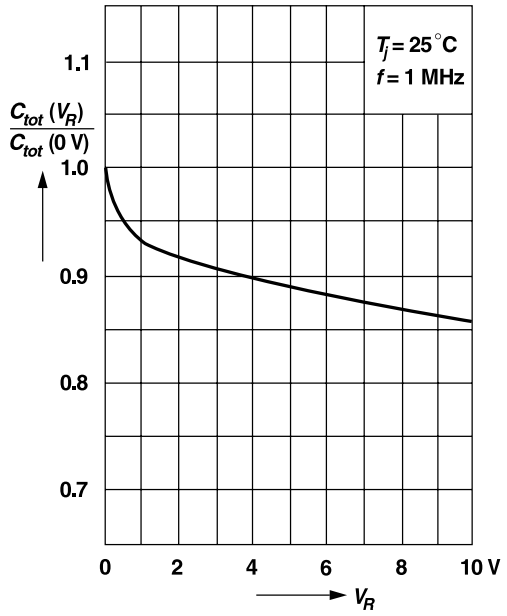


Admissible power dissipation versus ambient temperature

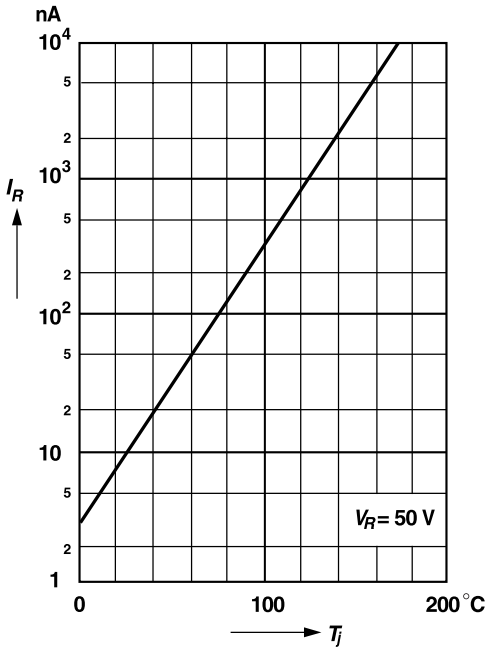
For conditions, see footnote in table "Absolute Maximum Ratings"



Relative capacitance versus reverse voltage



Leakage current
versus junction temperature



Admissible repetitive peak forward current versus pulse duration

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