

1N4153

Small Signal Diode



DO-35

Absolute Maximum Ratings * T_a = 25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V _{RRM}	Maximum Repetitive Reverse Voltage	75	V
I _{F(AV)}	Average Rectified Forward Current	200	mA
I _{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0 4.0	A A
T _{STG}	Storage Temperature Range	-65 to +200	°C
T _J	Operating Junction Temperature	175	°C

 $^{^{\}star}$ These ratings are limiting values above which the serviceability of the diode may be impaired.

NOTES

Thermal Characteristics

Symbol	Parameter	Value	Unit
P_{D}	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

Electrical Characteristics T_C = 25°C unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max	Units
V_R	Breakdown Voltage	I _R = 5μA	75		V
V _F	Forward Voltage	$I_F = 0.1 \text{mA}$ $I_F = 0.25 \text{mA}$ $I_F = 1.0 \text{mA}$ $I_F = 2.0 \text{mA}$ $I_F = 10 \text{mA}$ $I_F = 20 \text{mA}$	0.49 0.53 0.59 0.62 0.70 0.74	0.55 0.59 0.67 0.70 0.81 0.88	V V V V
I _R	Reverse Leakage	V _R = 50V V _R = 50V, T _A = 150°C		50 50	nA μA
C _T	Total Capacitance	V _R = 0, f = 1.0MHz		2	pF
t _{rr1}	Reverse Recovery Time	$I_F = I_R = 10 \text{mA}, R_L = 100 \Omega, I_{rr} = 1.0 \text{mA}$		4	ns
t _{rr2}		$I_F = 10 \text{mA}, V_R = 6.0 \text{V}$ $R_L = 100 \Omega, I_{rr} = 1.0 \text{mA}$		2	ns

¹⁾ These ratings are based on a maximum junction temperature of 200 degrees C.

²⁾ These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

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