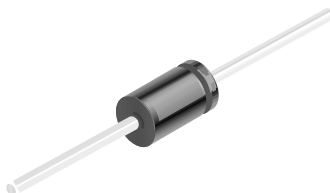


1N4151



DO-35

Color Band Denotes Cathode

Small Signal Diode

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	75	V
$I_{F(AV)}$	Average Rectified Forward Current	150	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	0.5	A
		2.0	A
T_{stg}	Storage Temperature Range	-65 to +175	$^\circ\text{C}$
T_J	Operating Junction Temperature	175	$^\circ\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	$^\circ\text{C}/\text{W}$

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
V_R	Breakdown Voltage	$I_R = 5.0 \mu\text{A}$	75		V
V_F^*	Forward Voltage	$I_F = 50 \text{ mA}$		1.0	V
I_R^*	Reverse Current	$V_R = 50 \text{ V}$		50	nA
		$V_R = 50 \text{ V}, T_A = 150^\circ\text{C}$		50	μA
C_T	Total Capacitance	$V_R = 0 \text{ V}, f = 1.0 \text{ MHz}$		2.0	pF
t_{rr1}	Reverse Recovery Time	$I_F = I_R = 10 \text{ mA}, I_{RR} = 1.0 \text{ mA}, R_L = 100\Omega$		4.0	ns
t_{rr2}	Reverse Recovery Time	$I_F = 10 \text{ mA}, V_R = 6.0 \text{ V}, R_L = 100\Omega$		2.0	ns

*Pulse test : Pulse width=300us, Duty Cycle=2%

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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