

# 1N4151

## FEATURES :

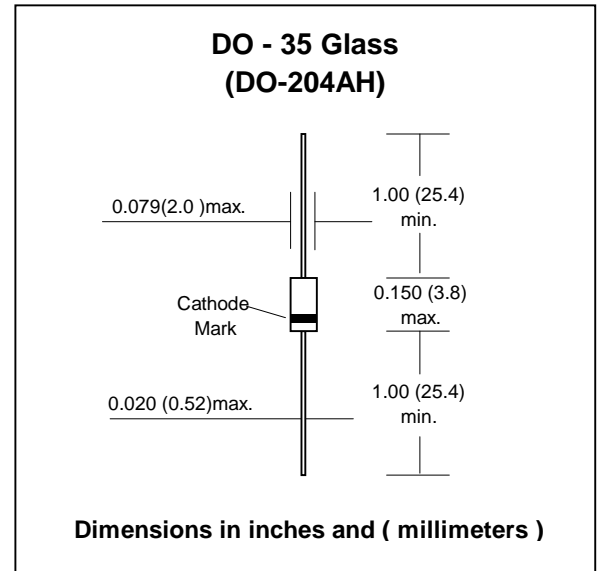
- High switching speed: max. 4 ns
- Reverse voltage: max. 50 V
- Peak reverse voltage: max. 75 V
- Pb / RoHS Free

## MECHANICAL DATA :

**Case:** DO-35 Glass Case

**Weight:** approx. 0.13g

## HIGH SPEED SWITCHING DIODE



## Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified.)

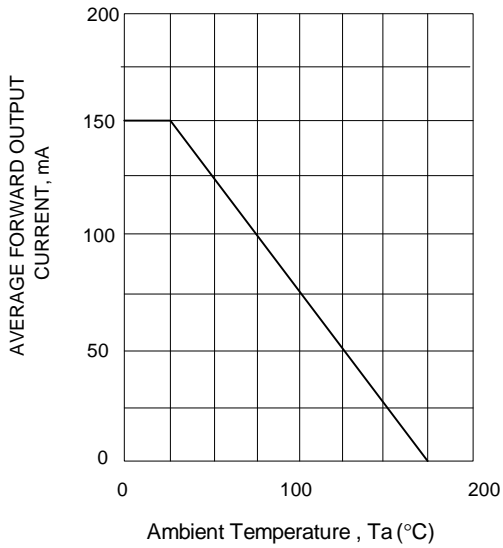
Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	$V_{RM}$	75	V
Maximum Reverse Voltage	$V_R$	50	V
Maximum Continuous Forward Current	$I_F$	200	mA
Maximum Average Forward Current Half Wave Rectification with Resistive Load , $f \geq 50\text{Hz}$ <sup>(1)</sup>	$I_{F(AV)}$	150	mA
Maximum non-repetitive peak forward current at $t = 1\text{s}$	$I_{FSM}$	0.5	A
Maximum Power Dissipation	$P_D$	500	mW
Maximum Junction Temperature	$T_J$	175	°C
Storage Temperature Range	$T_S$	-65 to + 175	°C

## Electrical Characteristics ( $T_J = 25^\circ\text{C}$ unless otherwise noted)

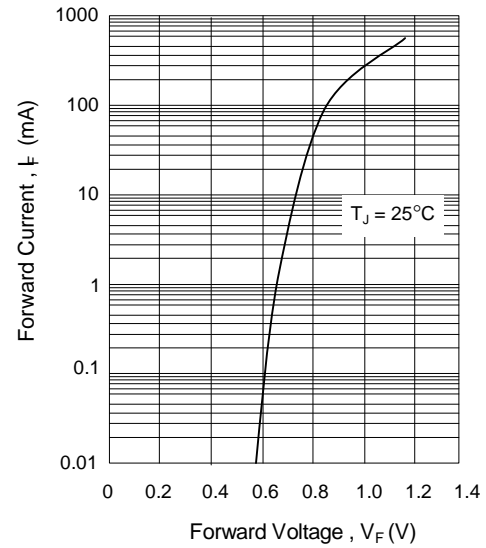
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Current	$I_R$	$V_R = 50\text{ V}$	-	-	0.05	$\mu\text{A}$
		$V_R = 50\text{ V}$ , $T_J = 150\text{ }^\circ\text{C}$	-	-	50	$\mu\text{A}$
Forward Voltage	$V_F$	$I_F = 50\text{ mA}$	-	-	1.0	V
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 5\text{ A (pulsed)}$	75	-	-	V
Diode Capacitance	$C_d$	$f = 1\text{ MHz}$ ; $V_R = 0$	-	-	2.5	pF
Reverse Recovery Time	$T_{rr}$	$I_F = 10\text{ mA}$ to $I_R = 10\text{ mA}$ to $I_R = 1\text{ mA}$	-	-	4	ns

## RATING AND CHARACTERISTIC CURVES ( 1N4151 )

**FIG. 1 MAXIMUM FORWARD CURRENT VERSUS AMBIENT TEMPERATURE**



**FIG. 2 TYPICAL FORWARD VOLTAGE**



**FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE**

