

1N4151

HIGH SPEED SWITCHING DIODE

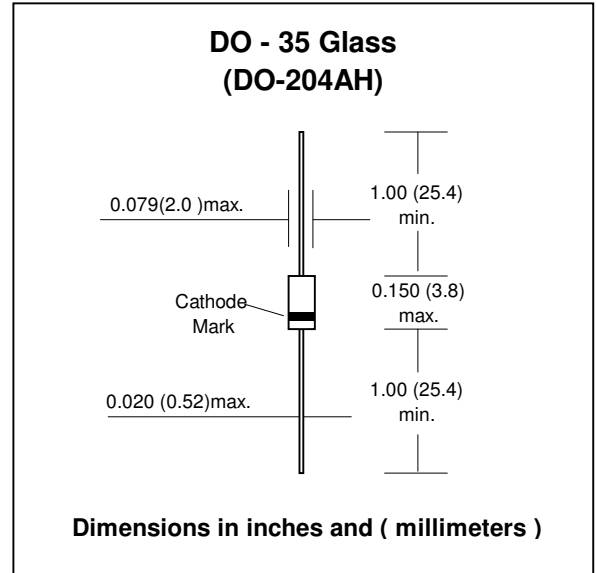
FEATURES :

- 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



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 , $f \geq 50\text{Hz}$ ⁽¹⁾	$I_{F(AV)}$	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	μA
		$V_R = 50\text{ V}$, $T_J = 150\text{ }^\circ\text{C}$	-	-	50	μA
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

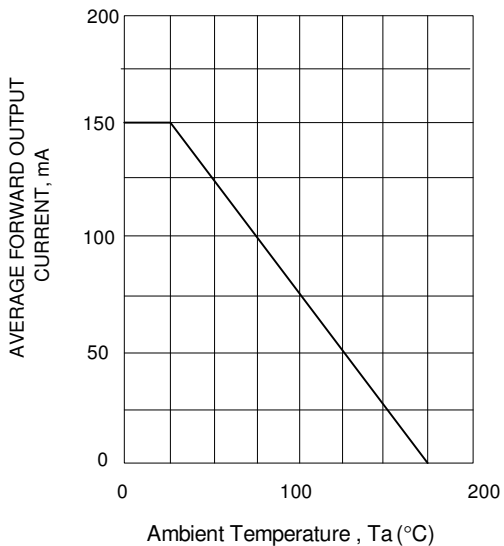


FIG. 2 TYPICAL FORWARD VOLTAGE

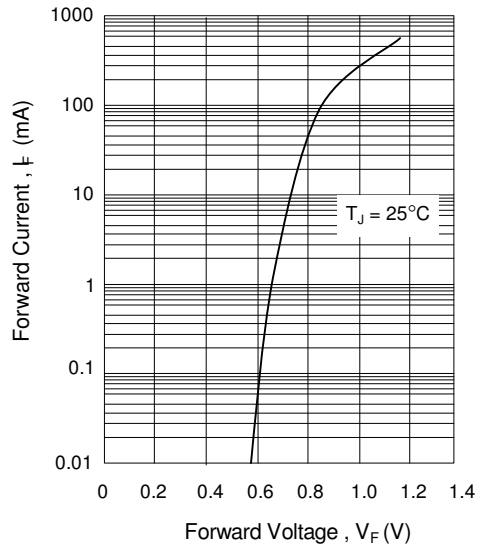


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

