

1N4152

HIGH SPEED SWITCHING DIODE

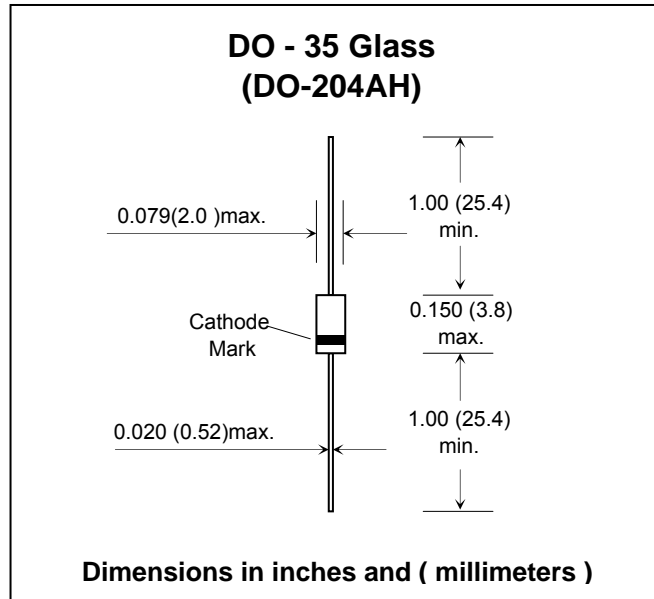
FEATURES :

- High switching speed: max. 4 ns
- Peak reverse voltage: max. 40 V
- Pb / RoHS Free

MECHANICAL DATA :

Case: DO-35 Glass Case

Weight: approx. 0.13g



Maximum Ratings and Thermal Characteristics (Ta = 25 °C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	40	V
Maximum Average Forward Current	$I_{F(AV)}$	150	mA
Maximum Non-repetitive Peak Forward Surge Current at $t_p = 1s$ at $t_p = 1 \mu s$	I_{FSM}	1.0	A
		4.0	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	300	°C/W
Maximum Power Dissipation	P_D	500	mW
Operating Junction Temperature	T_J	175	°C
Storage Temperature Range	T_{STG}	-65 to + 200	°C

Electrical Characteristics (Ta = 25 °C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Current	I_R	$V_R = 30 V$	-	-	50	nA
		$V_R = 30 V, T_a = 150 ^\circ C$	-	-	50	μA
Forward Voltage	V_F	$I_F = 0.1 mA$	0.49	-	0.55	V
		$I_F = 0.25 mA$	0.53	-	0.59	
		$I_F = 1.0 mA$	0.59	-	0.67	
		$I_F = 2.0 mA$	0.62	-	0.70	
		$I_F = 10 mA$	0.70	-	0.81	
		$I_F = 20 mA$	0.74	-	0.88	
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 5 \mu A$	40	-	-	V
Diode Capacitance	Cd	$f = 1MHz; V_R = 0$	-	-	2.0	pF
Reverse Recovery Time	Trr1	$I_F = I_R = 10 mA,$ $R_L = 100 \Omega, I_{rr} = 1mA$	-	-	4	ns
	Trr2	$I_F = 10 mA, V_R = 6 V,$ $R_L = 100 \Omega, I_{rr} = 1 mA$	-	-	2	ns