

1N4154

HIGH SPEED SWITCHING DIODE

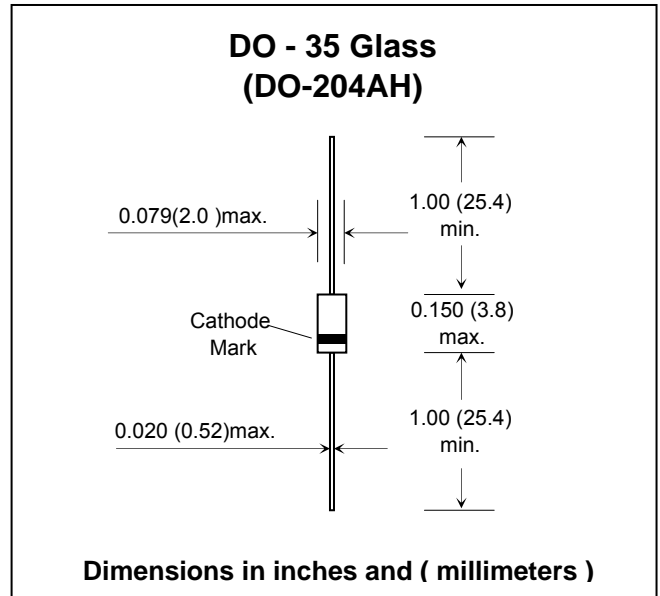
FEATURES :

- High switching speed: max. 2 ns
- Reverse voltage: max. 25 V
- Repetitive peak reverse voltage: max. 35 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 Repetitive Peak Reverse Voltage	V_{RRM}	35	V
Maximum Reverse Voltage	V_R	25	V
Maximum Average Forward Current	$I_{F(AV)}$	150	mA
Maximum Forward Current	I_F	300	mA
Maximum Repetitive Peak Forward Current	I_{FRM}	500	mA
Maximum Peak Forward Surge Current at $t_p = 1\mu s$	I_{FSM}	2.0	A
Thermal Resistance Junction to Ambient ($l = 4mm, T_L = \text{constant}$)	$R_{\theta JA}$	350	K/W
Power Dissipation ($l = 4mm, T_L \leq 25^\circ C$)	P_D	500	mW
Operating Junction Temperature	T_J	175	$^\circ C$
Storage Temperature Range	T_{STG}	-65 to + 175	$^\circ C$

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Current	I_R	$V_R = 25 V$	-	9	100	nA
		$V_R = 25 V, T_a = 150^\circ C$	-	-	100	μA
Forward Voltage	V_F	$I_F = 30 mA$	-	0.88	1.0	V
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 5 \mu A, t_p/T = 0.01, t_p = 0.3ms$	35	-	-	V
Diode Capacitance	C_d	$f = 1MHz; V_R = 0, V_{HF} = 50mV$	-	-	4	pF
Reverse Recovery Time	T_{rr}	$I_F = I_R = 10 mA, i_R = 1 mA$	-	-	4	ns
		$I_F = 10 mA, V_R = 6 V, R_L = 100 \Omega, i_R = 0.1 \times I_R$	-	-	2	ns

RATING AND CHARACTERISTIC CURVES (1N4154)

FIG1. - FORWARD CURRENT VS. FORWARD VOLTAGE

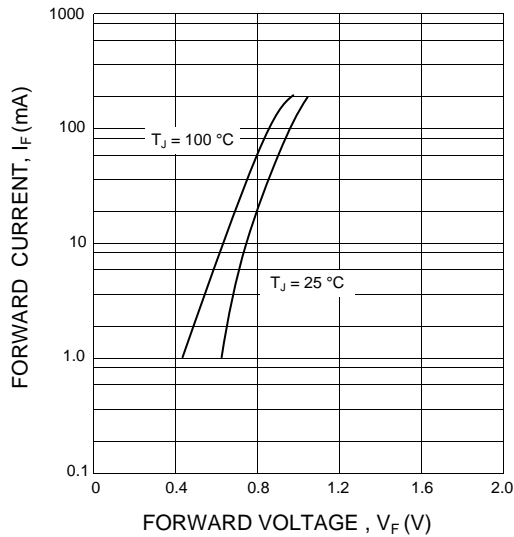


FIG.2 - REVERSE CURRENT VS. JUNCTION TEMPERATURE

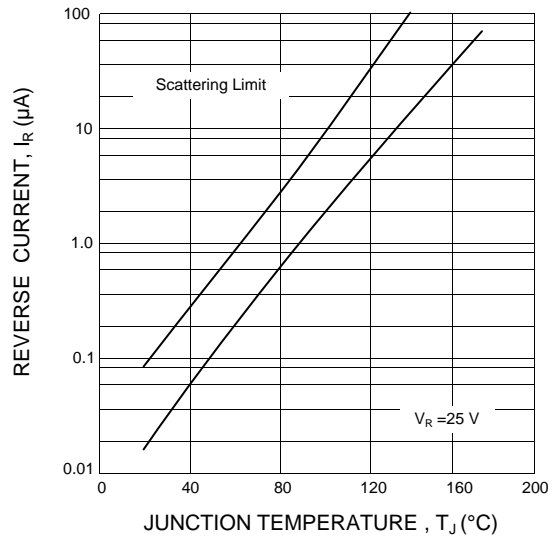


FIG3. - DIODE CAPACITANCE VS. REVERSE VOLTAGE

