

# 1N4449

## HIGH SPEED SWITCHING DIODE

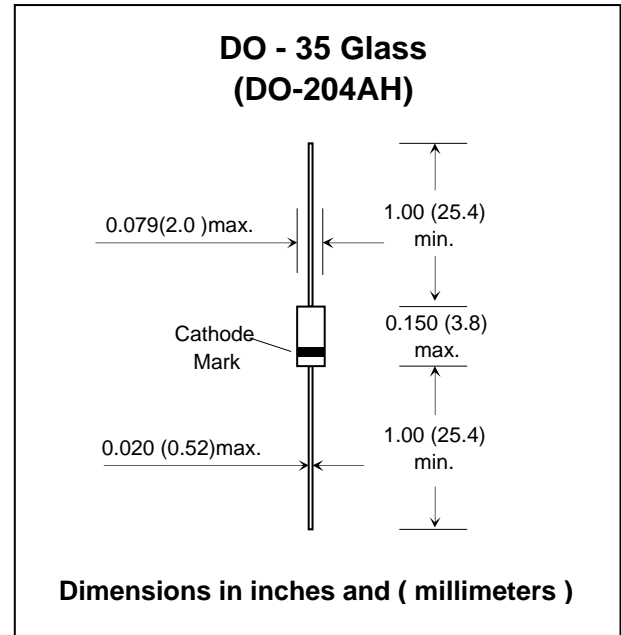
### FEATURES :

- High switching speed: max. 4 ns
- Reverse voltage: max. 75V
- Peak reverse voltage: max. 100 V
- Pb / RoHS Free

### MECHANICAL DATA :

**Case:** DO-35 Glass Case

**Weight:** approx. 0.13g



### Maximum Ratings and Thermal Characteristics ( $T_a = 25^\circ\text{C}$ )

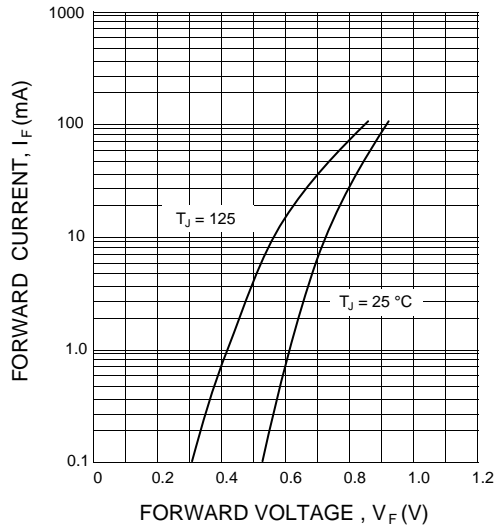
Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	$V_{RM}$	100	V
Maximum Reverse Voltage	$V_R$	75	V
Maximum Forward DC Current	$I_F$	200	mA
Maximum Average Forward Current	$I_{F(AV)}$	150	mA
Maximum Surge Forward Current at $t_p = 1 \mu\text{s}$	$I_{FSM}$	2	A
Power Dissipation	$P_D$	500	mW
Maximum Junction Temperature	$T_J$	200	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to + 200	$^\circ\text{C}$

### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

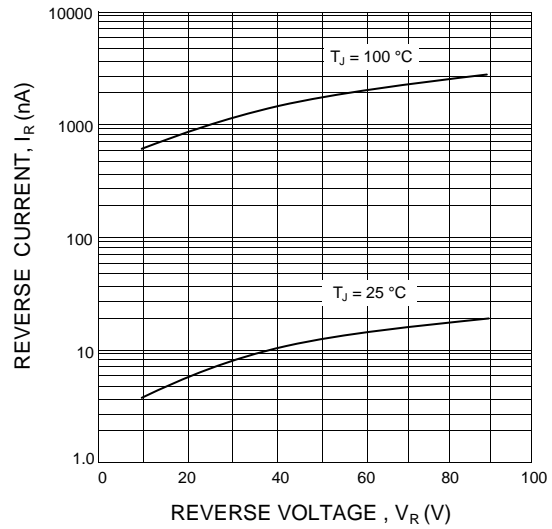
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	$I_R$	$V_R = 20 \text{ V}$	-	-	25	nA
		$V_R = 20 \text{ V}, T_j = 150^\circ\text{C}$	-	-	50	$\mu\text{A}$
Forward Voltage	$V_F$	$I_F = 5 \text{ mA}$	0.63	-	0.73	V
		$I_F = 30 \text{ mA}$	-	-	1.0	
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100 \mu\text{A}$ (pulsed)	100	-	-	V
Diode Capacitance	Cd	$f = 1\text{MHz}; V_R = 0$	-	-	2	pF
Reverse Recovery Time	$T_{rr}$	$I_F = 10 \text{ mA}, V_R = 6 \text{ V}, R_L = 100 \Omega$	-	-	4	ns

## RATING AND CHARACTERISTIC CURVES ( 1N4449 )

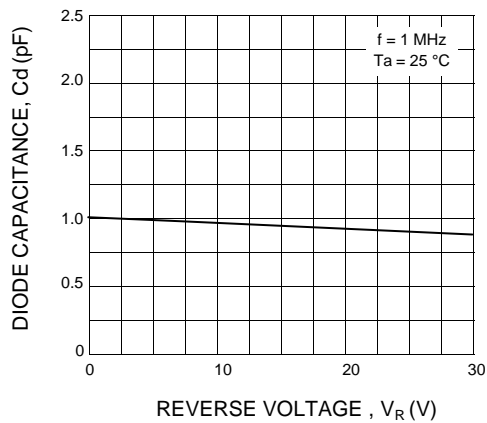
**FIG1. - FORWARD CURRENT VS. FORWARD VOLTAGE**



**FIG.2 - REVERSE CURRENT VS. JUNCTION TEMPERATURE**



**FIG3. - CAPACITANCE BETWEEN TERMINALS VS. REVERSE VOLTAGE**



**FIG. 4 - REVERSE RECOVERY TIME VS. FORWARD CURRENT**

