

1N4449

HIGH SPEED SWITCHING DIODE

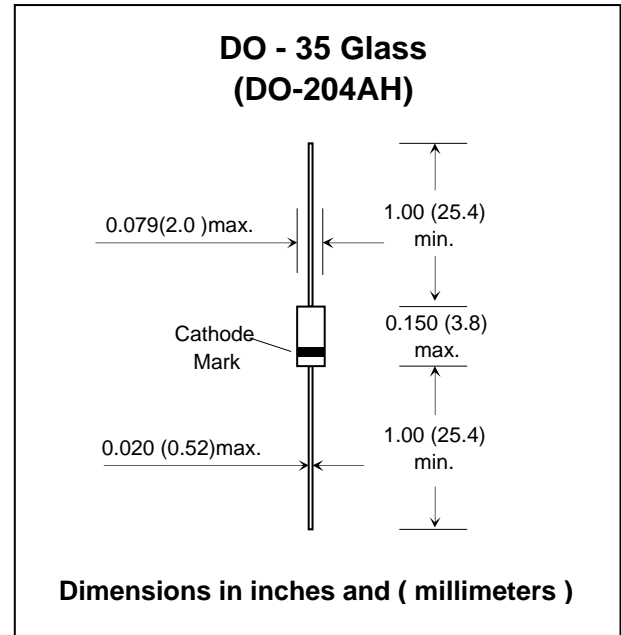
FEATURES :

- 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	μA
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

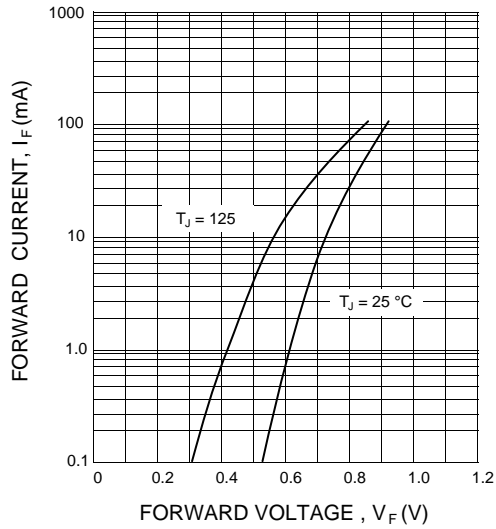


FIG.2 - REVERSE CURRENT VS. JUNCTION TEMPERATURE

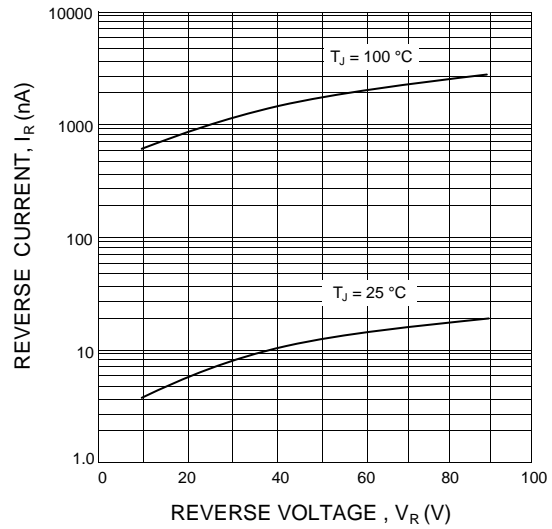


FIG3. - CAPACITANCE BETWEEN TERMINALS VS. REVERSE VOLTAGE

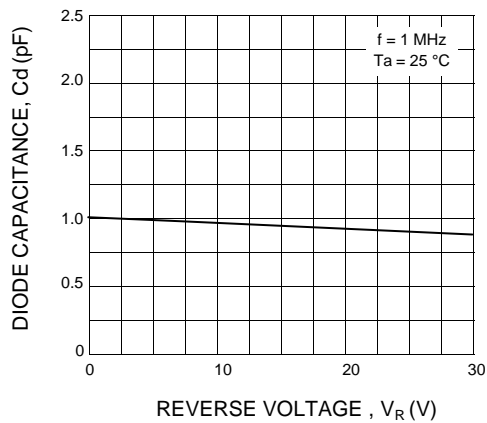


FIG. 4 - REVERSE RECOVERY TIME VS. FORWARD CURRENT

