

1N4450

HIGH SPEED SWITCHING DIODE

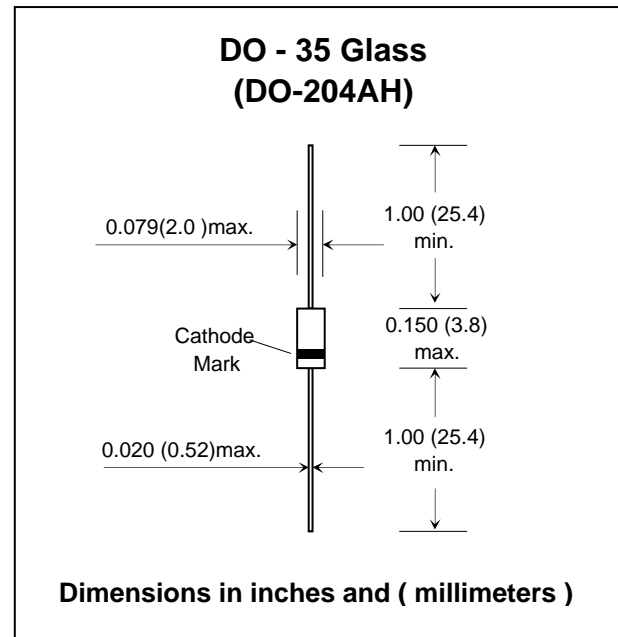
FEATURES :

- High switching speed: max. 4 ns
- Reverse voltage: max. 30 V
- 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)

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	40	V
Maximum Reverse Voltage	V_R	30	V
Maximum Forward DC Current	I_F	250	mA
Maximum Average Forward Current	$I_{F(AV)}$	200	mA
Maximum Surge Forward Current at $t_p = 1 \mu s$	I_{FSM}	4	A
Power Dissipation	P_D	500	mW
Maximum Junction Temperature	T_J	200	°C
Storage Temperature Range	T_{STG}	-65 to + 200	°C

Electrical Characteristics (Ta = 25 °C)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	I_R	$V_R = 30 V$	-	-	50	nA
		$V_R = 30 V, T_j = 150 \text{ }^\circ\text{C}$	-	-	50	μA
Forward Voltage	V_F	$I_F = 0.1 \text{ mA}$	0.42	-	0.54	V
		$I_F = 1.0 \text{ mA}$	0.52	-	0.64	
		$I_F = 10 \text{ mA}$	0.64	-	0.72	
		$I_F = 50 \text{ mA}$	0.80	-	0.92	
		$I_F = 200 \text{ mA}$	-	-	1.00	
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 5 \mu\text{A}$ (pulsed)	40	-	-	V
Diode Capacitance	C_d	$f = 1\text{MHz}; V_R = 0$	-	-	4	pF
Reverse Recovery	T_{rr}	$I_F = 10 \text{ mA}, V_R = 6 V, R_L = 100 \Omega$	-	-	4	ns

RATING AND CHARACTERISTIC CURVES (1N4450)

FIG1. - FORWARD CURRENT VS. FORWARD VOLTAGE

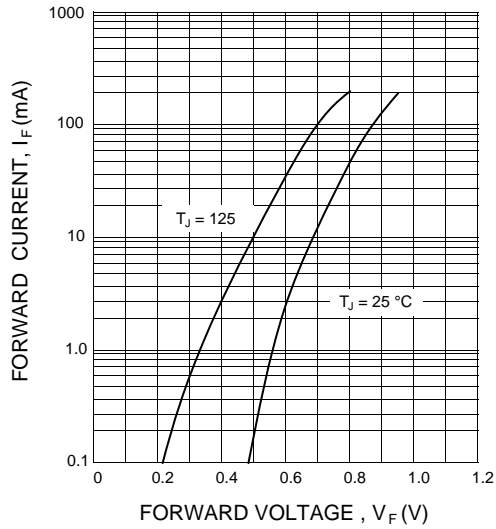


FIG.2 - REVERSE CURRENT VS. JUNCTION TEMPERATURE

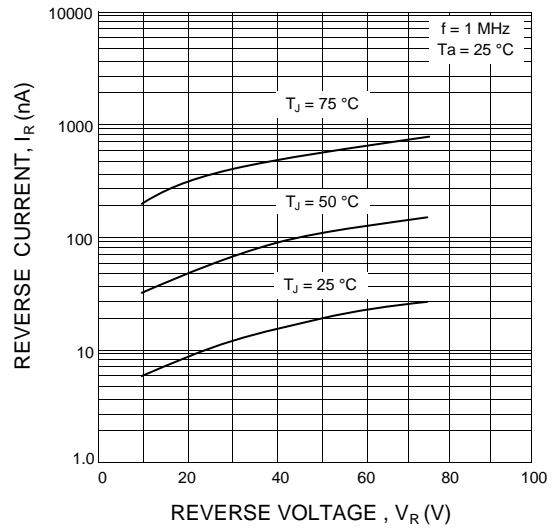


FIG3. - CAPACITANCE BETWEEN TERMINALS VS. REVERSE VOLTAGE

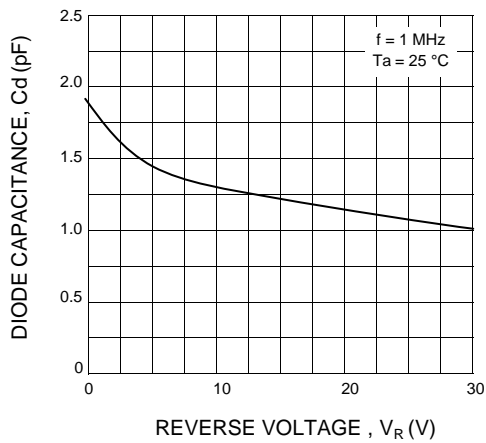


FIG. 4 - REVERSE RECOVERY TIME VS. FORWARD CURRENT

