

# 1N4450

## HIGH SPEED SWITCHING DIODE

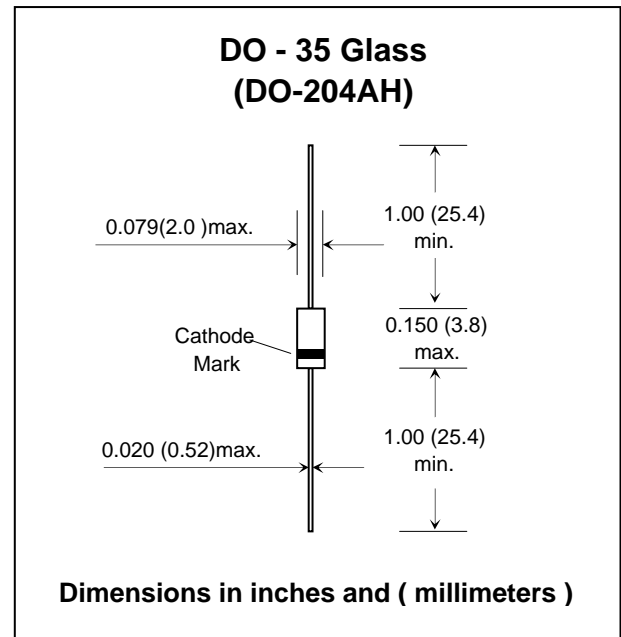
### FEATURES :

- 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)

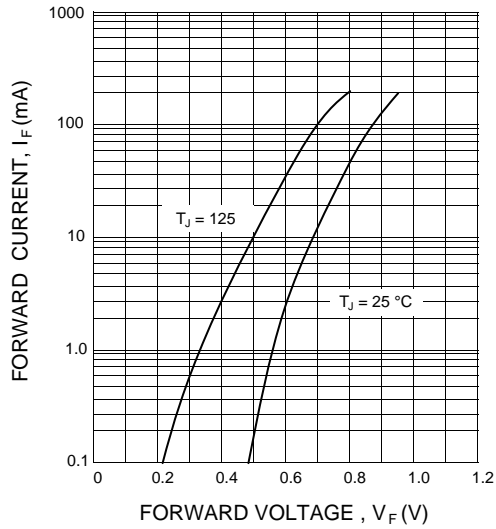
Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	$V_{RM}$	40	V
Maximum Reverse Voltage	$V_R$	30	V
Maximum Forward DC Current	$I_F$	250	mA
Maximum Average Forward Current	$I_{F(AV)}$	200	mA
Maximum Surge Forward Current at $t_p = 1 \mu s$	$I_{FSM}$	4	A
Power Dissipation	$P_D$	500	mW
Maximum Junction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

### Electrical Characteristics ( Ta = 25 °C)

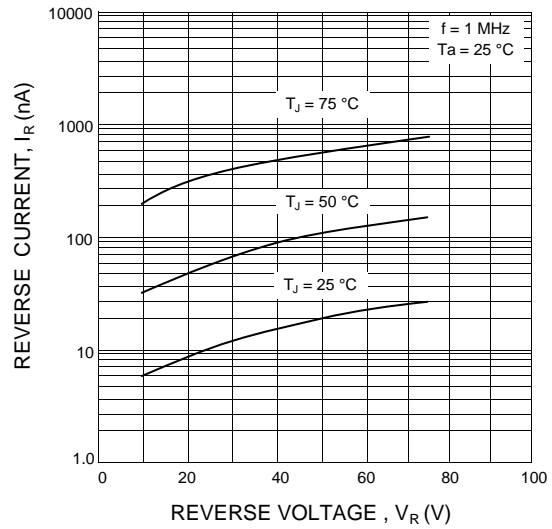
Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Current	$I_R$	$V_R = 30 V$	-	-	50	nA
		$V_R = 30 V, T_j = 150 °C$	-	-	50	$\mu A$
Forward Voltage	$V_F$	$I_F = 0.1 mA$	0.42	-	0.54	V
		$I_F = 1.0 mA$	0.52	-	0.64	
		$I_F = 10 mA$	0.64	-	0.72	
		$I_F = 50 mA$	0.80	-	0.92	
		$I_F = 200 mA$	-	-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

## RATING AND CHARACTERISTIC CURVES ( 1N4450 )

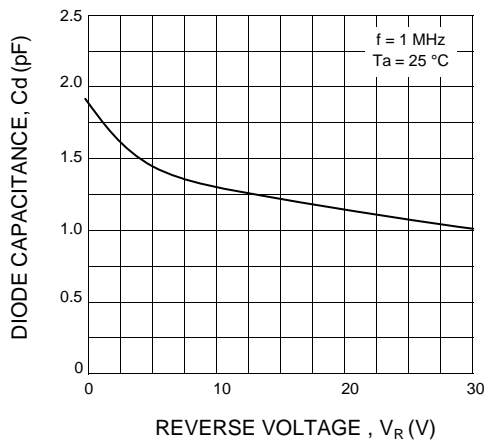
**FIG1. - FORWARD CURRENT VS. FORWARD VOLTAGE**



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



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



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

