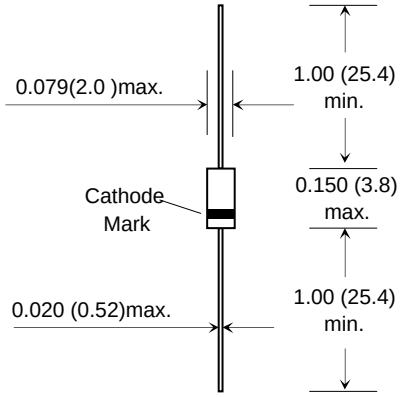
SYNSEMI SEMICONDUCTOR

1N4447

HIGH SPEED SWITCHING DIODE

DO - 35 Glass
(DO-204AH)



Dimensions in inches and (millimeters)

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 (Ta = 25 °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 tp = 1 µs	I_{FSM}	2	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 = 20 V	-	-	25	nA
		V_R = 20 V , Tj = 150 °C	-	-	50	µA
Forward Voltage	V_F	I_F = 20 mA	-	-	1	V
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R = 100 µA (pulsed)	100	-	-	V
Diode Capacitance	Cd	f = 1MHz ; V_R = 0	-	-	2	pF
Reverse Recovery	Trr	I_F = 10 mA ,V_R = 6 V, R_L = 100 Ω	-	-	4	ns

RATING AND CHARACTERISTIC CURVES (1N4447)

FIG1. - FORWARD CURRENT VS. FORWARD VOLTAGE

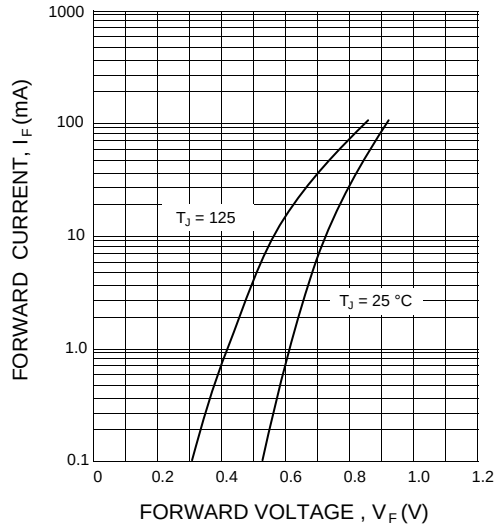


FIG.2 - REVERSE CURRENT VS. JUNCTION TEMPERATURE

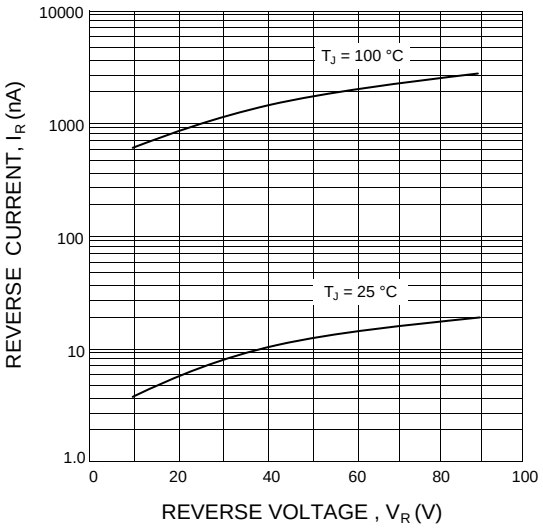


FIG3. - CAPACITANCE BETWEEN TERMINALS VS. REVERSE VOLTAGE

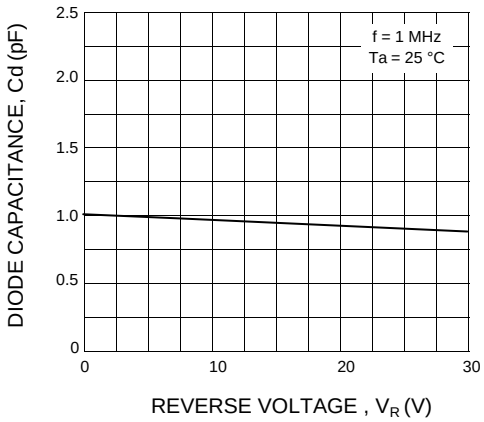


FIG. 4 - REVERSE RECOVERY TIME VS. FORWARD CURRENT