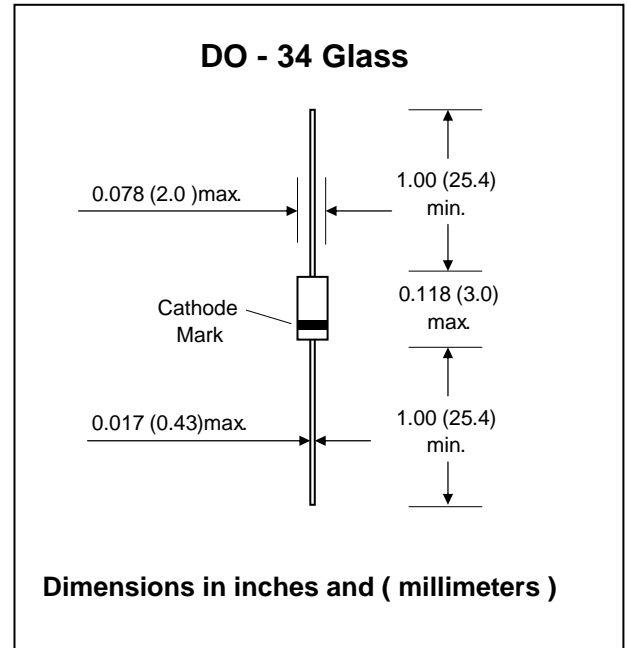# 1N4531 ~ 1N4532

HIGH SPEED SWITCHING DIODES

FEATURES :

• High switching speed: max. 4 ns

• Continuous reverse voltage:max. 75 V

• Repetitive peak reverse voltage:max. 75 V

• Repetitive peak forward current:max. 450 mA.

• Pb / RoHS Free

MECHANICAL DATA :
Case: DO-34 Glass Case
Weight: approx. 0.11g

DO - 34 Glass

0.078 (2.0)max.

1.00 (25.4) min.

Cathode Mark

0.118 (3.0) max.

0.017 (0.43)max.

1.00 (25.4) min.

Dimensions in inches and (millimeters)

Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Maximum Continuous Reverse Voltage	V_{RM}	75	V
Maximum Continuous Forward Current	I_F	200	mA
Maximum Repetitive Peak Forward Current	I_{FRM}	450	mA
Maximum Power Dissipation [1]	P_D	500	mW
Maximum Surge Forward Current at t < 1s, Tj = 25 °C	I_{FSM}	0.5	A
Maximum Junction Temperature	T_J	200	°C
Storage Temperature Range	T_S	-65 to + 200	°C

Electrical Characteristics (Tj = 25°C unless otherwise noted)

Parameter		Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Current	1N4531	I_R	V_R = 20 V	-	-	25	nA
			V_R = 20 V , Tj = 150 °C	-	-	5	µA
	1N4532		V_R = 50 V	-	-	100	nA
			V_R = 50 V , Tj = 150 °C	-	-	100	µA
Forward Voltage		V_F	I_F = 10 mA	-	-	1	V
Diode Capacitance	1N4531	Cd	f = 1MHz ; V_R = 0	-	-	4.0	pF
	1N4532			-	-	2.0	
Reverse Recovery Time	1N4531	Trr	I_F = 10 mA to I_R = 60mA R_L = 100 Ω ; Measured at I_R = 1 mA	-	-	4	ns
	1N4532			-	-	2	ns

RATING AND CHARACTERISTIC CURVES (1N4531 ~ 1N4532)

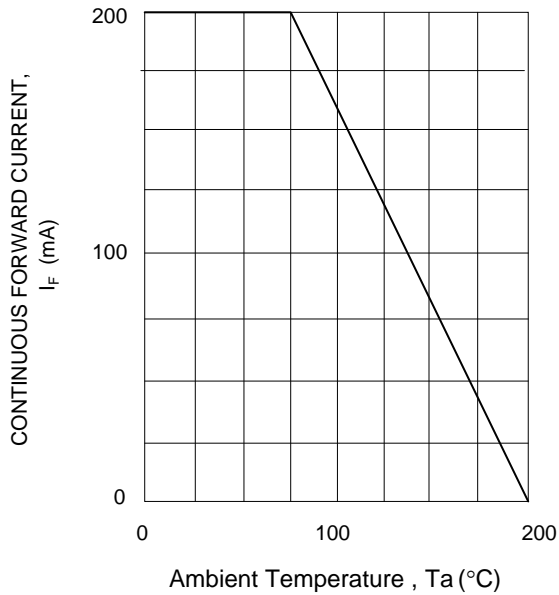**FIG. 1 MAXIMUM PERMISSIBLE CONTINUOUS FORWARD CURRENT AS A FUNCTION OF AMBIENT TEMPERATURE.**
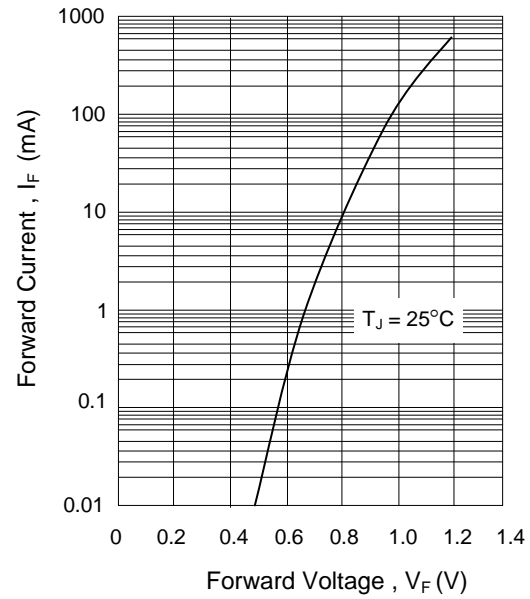

FIG. 2 TYPICAL FORWARD VOLTAGE

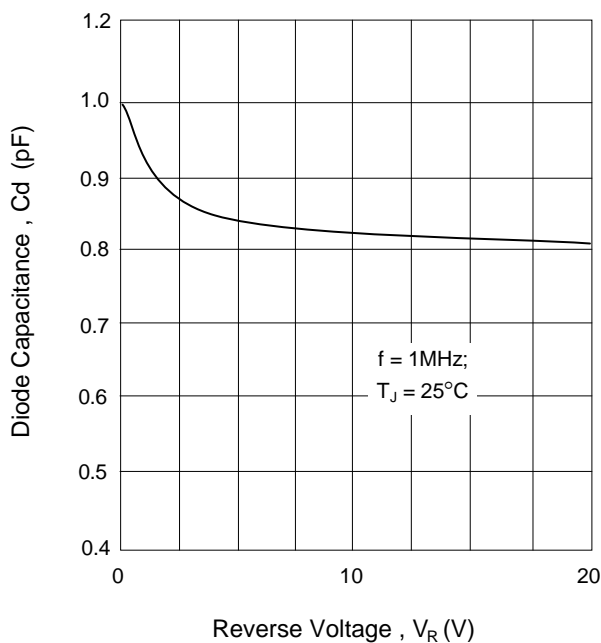**FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE**

FIG. 4 TYPICAL REVERESE CURRENT VS JUNCTION TEMPERATURE