

# 1N4531 ~ 1N4532

# HIGH SPEED SWITCHING DIODES

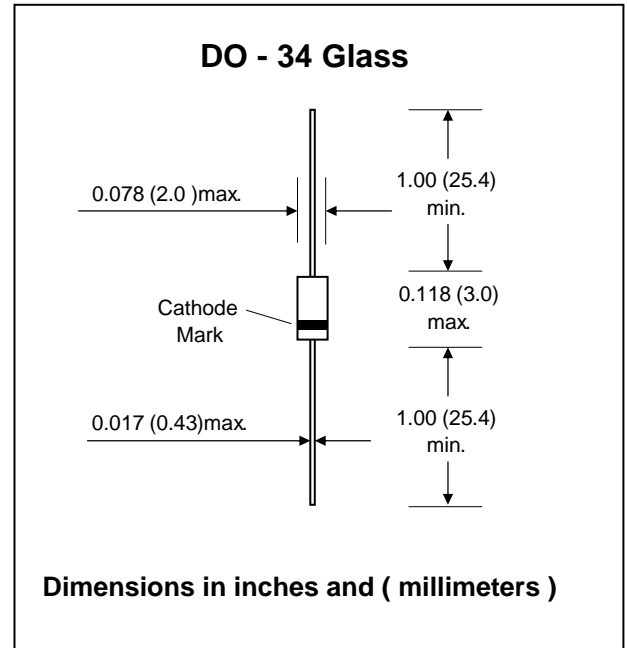
## FEATURES :

- 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



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

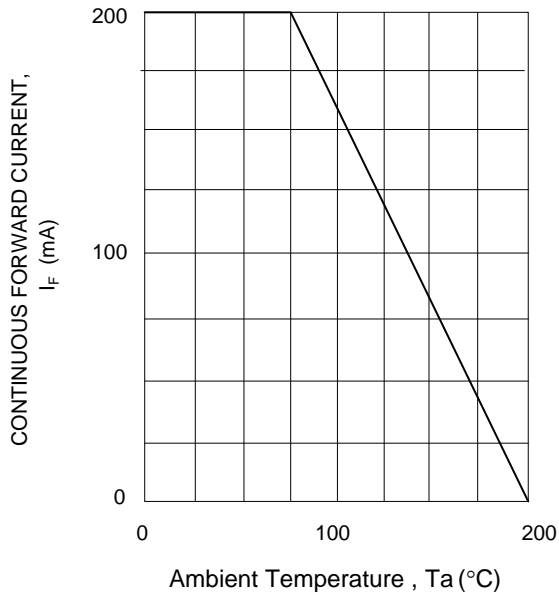
Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	75	V
Maximum Continuous Reverse Voltage	$V_{RM}$	75	V
Maximum Continuous Forward Current	$I_F$	200	mA
Maximum Repetitive Peak Forward Current	$I_{FRM}$	450	mA
Maximum Power Dissipation <sup>(1)</sup>	$P_D$	500	mW
Maximum Surge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

## Electrical Characteristics ( $T_J = 25\text{ °C}$ unless otherwise noted)

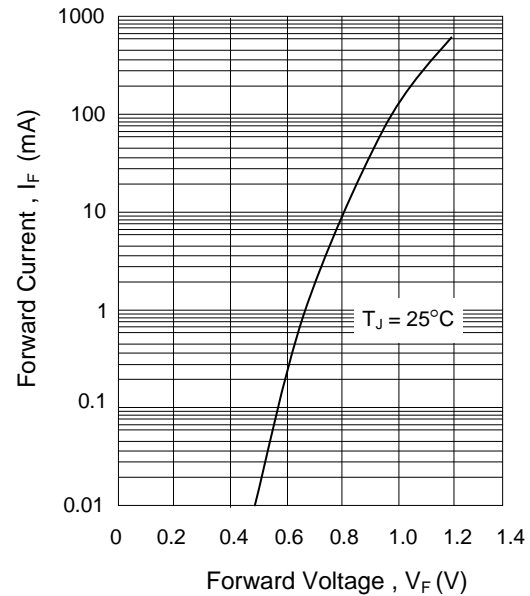
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit	
Reverse Current	$I_R$	$V_R = 20\text{ V}$	-	-	25	nA	
		$V_R = 20\text{ V}$ , $T_J = 150\text{ °C}$	-	-	5	$\mu\text{A}$	
		$V_R = 50\text{ V}$	-	-	100	nA	
		$V_R = 50\text{ V}$ , $T_J = 150\text{ °C}$	-	-	100	$\mu\text{A}$	
Forward Voltage	$V_F$	$I_F =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

## RATING AND CHARACTERISTIC CURVES ( 1N4531 ~ 1N4532 )

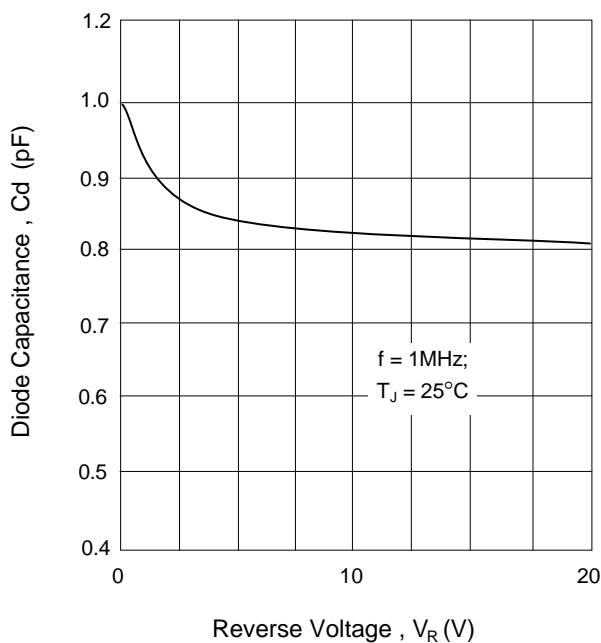
**FIG. 1 MAXIMUM PERMISSIBLE CONTINUOUS FORWARD CURRENT AS A FUNCTION OF AMBIENT TEMPERATURE.**



**FIG. 2 TYPICAL FORWARD VOLTAGE**



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



**FIG. 4 TYPICAL REVERSE CURRENT VS JUNCTION TEMPERATURE**

