

1N4531 ~ 1N4532

HIGH SPEED SWITCHING DIODES

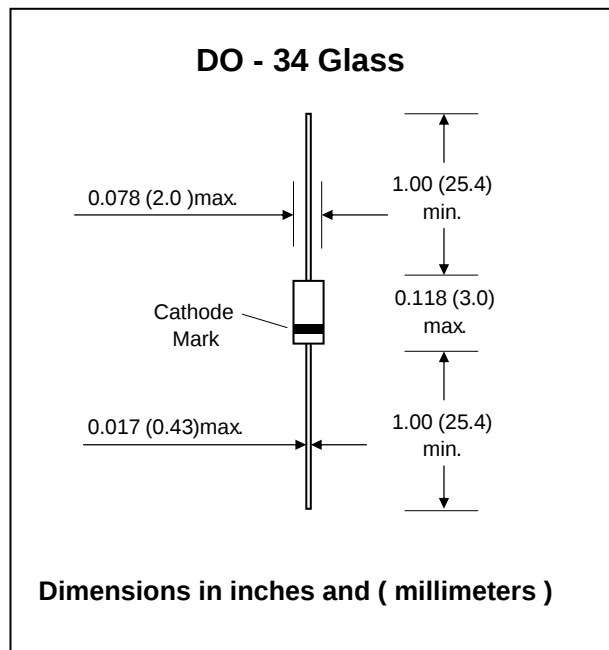
FEATURES :

- 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 ⁽¹⁾	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	μA
		$V_R = 50\text{ V}$	-	-	100	nA
		$V_R = 50\text{ V}$, $T_J = 150\text{ °C}$	-	-	100	μA
Forward Voltage	V_F	$I_F = 10\text{ mA}$	-	-	1	V
Diode Capacitance	C_d	$f = 1\text{ MHz}$; $V_R = 0$	-	-	4.0	pF
			-	-	2.0	pF
Reverse Recovery Time	T_{rr}	$I_F = 10\text{ mA}$ to $I_R = 60\text{ mA}$	-	-	4	ns
		$R_L = 100\text{ Ω}$; Measured at $I_R = 1\text{ mA}$	-	-	2	ns

RATING AND CHARACTERISTIC CURVES (1N4531 ~ 1N4532)

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

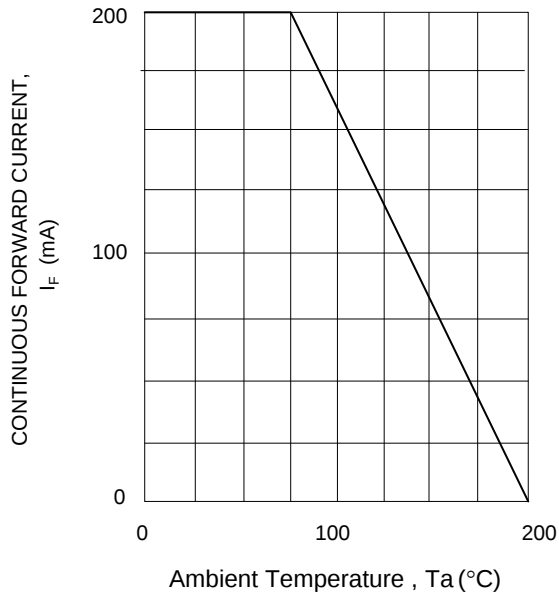


FIG. 2 TYPICAL FORWARD VOLTAGE

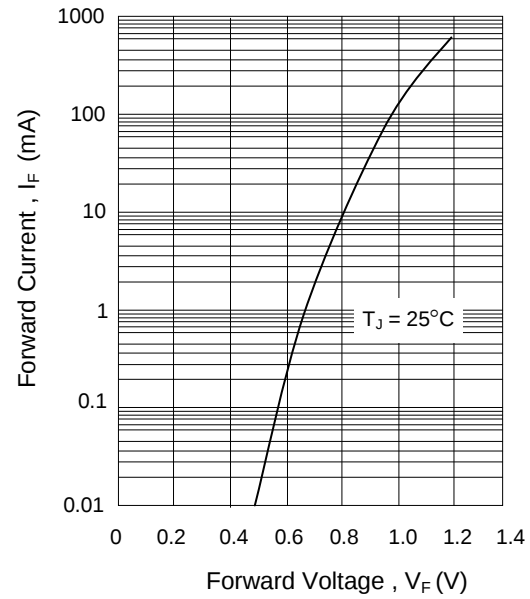


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

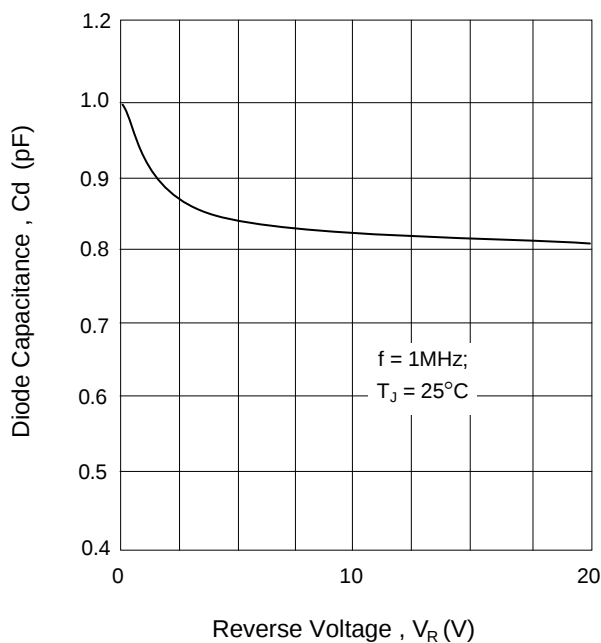


FIG. 4 TYPICAL REVERSE CURRENT VS JUNCTION TEMPERATURE

