

1N914/A/B

HIGH SPEED SWITCHING DIODES

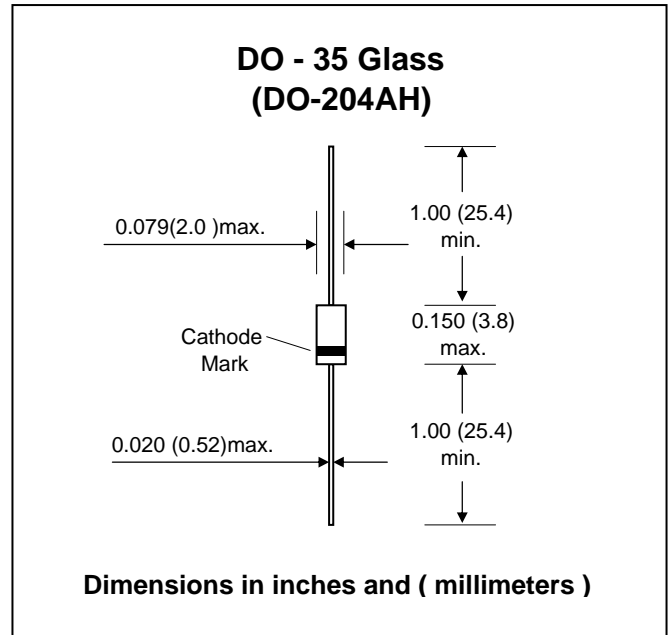
FEATURES :

- High switching speed: max. 4 ns
- Continuous reverse voltage: max. 75 V
- Repetitive peak reverse voltage: max. 100 V
- Repetitive peak forward current: max. 225 mA
- **Pb / RoHS Free**

MECHANICAL DATA :

Case: DO-35 Glass Case

Weight: approx. 0.13g



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}	100	V
Maximum Continuous Reverse Voltage	V_{RM}	75	V
Maximum Continuous Forward Current	I_F	75	mA
Maximum Power Dissipation	P_D	250	mW
Maximum Repetitive Peak Forward Current	I_{FRM}	225	mA
Maximum Non-repetitive Peak Forward Current at t = 1s	I_{FSM}	0.5	A
Maximum Junction Temperature	T_J	175	°C
Storage Temperature Range	T_S	-65 to + 200	°C

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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Current	I_R	$V_R = 20\text{ V}$	-	-	25	nA
		$V_R = 20\text{ V}, T_J = 150\text{ }^\circ\text{C}$	-	-	50	μA
Forward Voltage	V_F	1N914 $I_F = 10\text{ mA}$	-	-	1.0	V
		1N914A $I_F = 20\text{ mA}$	-	-	1.0	V
		1N914B $I_F = 5\text{ mA}$	0.62	-	0.72	V
		1N914B $I_F = 100\text{ mA}$	-	-	1.0	V
Diode Capacitance	C_d	$f = 1\text{ MHz}; V_R = 0$	-	-	4.0	pF
Reverse Recovery Time	T_{rr}	$I_F = 10\text{ mA to } I_R = 60\text{ mA}$ $R_L = 100\ \Omega$; measured at $I_R = 1\text{ mA}$	-	-	4	ns

RATING AND CHARACTERISTIC CURVES (1N914/A/B)

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

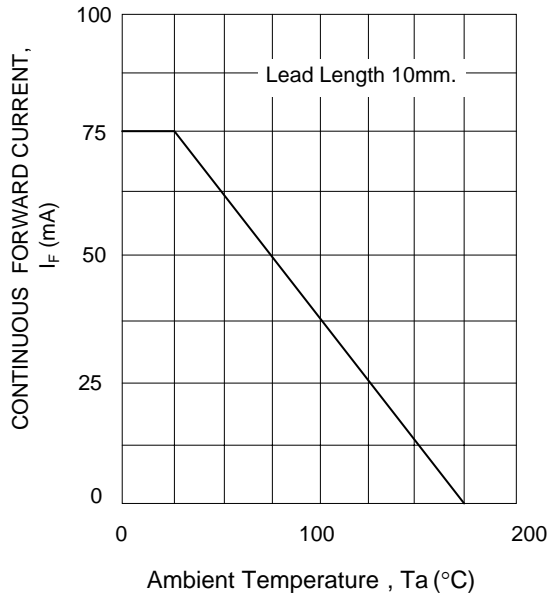


FIG. 2 TYPICAL FORWARD VOLTAGE

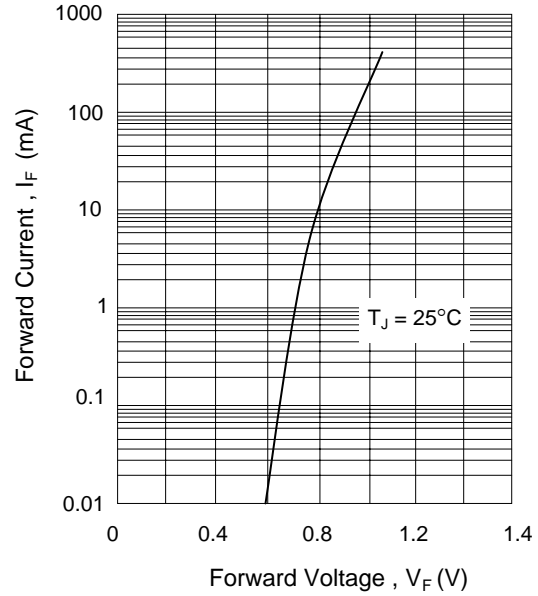


FIG. 3 TYPICAL DIODE CAPACITANCE AS A FUNCTION OF REVERSE VOLTAGE

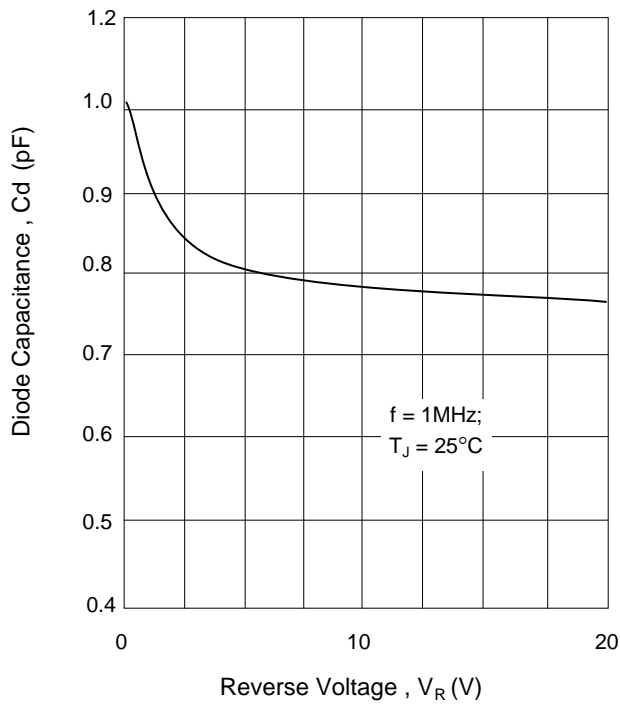


FIG. 4 TYPICAL REVERSE CURRENT VERSUS JUNCTION TEMPERATURE

