T-03-09

HIGH SPEED DIODES

1N4151 • 1N4152
1N4153 • 1N4154

ABSOLUTE MAXIMUM RATINGS

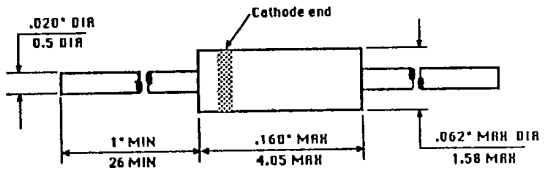
- T_{RR} 2.0 ns @ 10 mA, -6V, 100Ω
- C 4 pF

Temperatures

Storage Temperature Range	-65 °C to +200 °C
Maximum Junction Operating Temperature	+175 °C
Lead Temperature	+260 °C

Power Dissipation

Maximum Total Power Dissipation at 25 °C Ambient	500 mW
Linear Power Derating Factor (from 25 °C)	3.33 mW/ °C



DO-35 PACKAGE

Maximum Voltage and Currents

WIV	Working Inverse Voltage	1N4151 - 50 V; 1N4152 - 30 V; 1N4153 - 50 V; 1N4154 - 25V
I_o	Average Rectified Current	100 mA
I_F	Continuous Forward Current	300 mA
i_F	Peak Repetitive Forward Current	400 mA
i_F (surge)	Peak Forward Surge Current	
	Pulse Width = 1.0 µs	4.0 A
	Pulse Width = 1.0 s	1.0 A

ELECTRICAL CHARACTERISTICS (25 °C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
V_F	Forward Voltage				
	1N4154		1.0	V	I_F = 30 mA
	1N4151		1.0	V	I_F = 50 mA
	1N4152 & 1N4153	0.49	0.55	V	I_F = 0.1 mA
		0.53	0.59	V	I_F = 0.25 mA
		0.59	0.67	V	I_F = 1.0 mA
		0.62	0.70	V	I_F = 2.0 mA
		0.70	0.81	V	I_F = 10 mA
		0.74	0.88	V	I_F = 20 mA
I_R	Reverse Current				
	1N4154		0.1	µA	V_R = 25 V
			100	µA	V_R = 25 V, T_A = 150 °C
	1N4153, 1N4151		0.05	µA	V_R = 50 V
			50	µA	V_R = 50 V, T_A = 150 °C
	1N4152		0.05	µA	V_R = 30 V
			50	µA	V_R = 30 V, T_A = 150 °C
B_V	Breakdown Voltage				
	1N4154	35		V	I_R = 5.0 µA
	1N4153, 1N4151	75		V	I_R = 5.0 µA
	1N4152	40		V	I_R = 5.0 µA
T_{RR}	Reverse Recovery Time		4.0	ns	I_F = 10 mA I_R = 10 mA
			2.0	ns	I_F = 10 mA V_R = -6.0 V, R_L = 100 Ω
C	Capacitance		4.0	pF	V_R = 0, f = 1.0 MHz

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