1N4151 ~ 1N4153

Silicon Epitaxial Planar Type

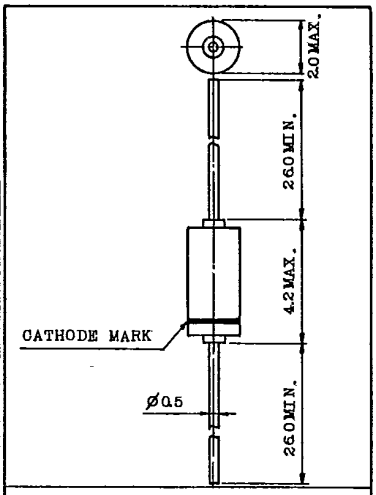
Diode

TENTATIVE

COMMUNICATION AND INDUSTRIAL APPLICATIONS.

HIGH VOLTAGE, ULTRA HIGH SPEED SWITCHING APPLICATIONS.

Unit in mm



JEDEC	DO-35
EIAJ	ST-40
TOSHIBA	1-2A1A

Weight : 0.14g

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	1N4151/3	V_{RM}	75	V
	1N4152	V_{RM}	40	V
Reverse Voltage	1N4151/3	V_R	50	V
	1N4152	V_R	30	V
Maximum (Peak) Forward Current		I_{FM}	450	mA
Average Forward Current		I_O	150	mA
Surge Current (1 μs)		I_{FSM}	2	A
Power Dissipation		P	500	mW
Junction Temperature		T_j	200	°C
Storage Temperature Range		T_{stg}	-65 ~ 200	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Breakdown Voltage	1N4151/3	$V_{BR(1)}$	I_R=5μA	75	-	-	V
	1N4152	$V_{BR(2)}$	I_R=5μA	40	-	-	V
Forward Voltage	1N4152/3	$V_{F(1)}$	I_F=100μA	0.49	0.52	0.55	V
		$V_{F(2)}$	I_F=250μA	0.53	0.56	0.59	V
		$V_{F(3)}$	I_F=1mA	0.59	0.63	0.67	V
		$V_{F(4)}$	I_F=2mA	0.62	0.66	0.70	V
		$V_{F(5)}$	I_F=10mA	0.70	0.76	0.81	V
		$V_{F(6)}$	I_F=20mA	0.74	0.81	0.88	V
	1N4151	$V_{F(7)}$	I_F=50mA	-	-	1.00	V
Reverse Current	1N4152	$I_{R(1)}$	V_R=30V	-	-	50	nA
		$I_{R(2)}$	V_R=30V, Ta=150°C	-	-	50	μA
	1N4151/3	$I_{R(3)}$	V_R=50V	-	-	50	nA
		$I_{R(4)}$	V_R=50V, Ta=150°C	-	-	50	μA
Total Capacitance		C_T	V_R=0, f=1MHz	-	-	2	pF
Reverse Recovery Time		$t_{rr(1)}$	I_F=I_R=10mA, I_{rr}=1mA	-	-	4	ns
		$t_{rr(2)}$	I_F=10mA, V_R=6V, I_{rr}=1mA	-	-	2	ns