FAIRCHILD SEMICONDUCTOR TM

1N4154

DISCRETE POWER AND SIGNAL TECHNOLOGIES

General Description:

The high breakdown voltage, fast switching speed and high forward conductance of this diode packaged in a DO-35 miniature Glass Axial leaded package makes it desirable also as a general purpose diode.

High Conductance Fast Diode

Features:

- 500 milliwatt Power Dissipation package.
- Fast Switching Speed,
- Typical capacitance less than 1.0 picofarad.

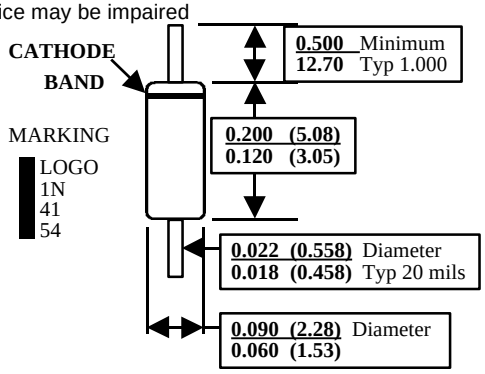
Ordering:

- 13 inch reel, 50 mm (T50R) & 26 mm (T26R) Tape; 10,000 units per reel.

Absolute Maximum Ratings* TA = 25°C unless otherwise noted

Sym	Parameter	Value	Units
T_{stg}	Storage Temperature	-65 to +200	°C
T_J	Operating Junction Temperature	175	°C
P_D	Total Power Dissipation at T_A = 25°C	500	mW
	Linear Derating Factor from T_A = 25°C	3.33	mW/°C
R_{OJA}	Thermal Resistance Junction-to-Ambient	300	°C/W
W_{iv}	Working Inverse Voltage	35	V
I_O	Average Rectified Current	100	mA
I_F	DC Forward Current (IF)	300	mA
i_f	Recurrent Peak Forward Current (IF)	400	mA
$i_{F(surge)}$	Peak Forward Surge Current (IFSM) Pulse Width = 1.0 second	1.0	Amp
	Pulse Width = 1.0 microsecond	4.0	Amp

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired



Electrical Characteristics TA = 25°C unless otherwise noted

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
B_V	Breakdown Voltage	35		V	I_R = 5.0 uA
I_R	Reverse Leakage		100	nA	V_R = 25 V
			100	uA	V_R = 25 V, T_A = 150°C
V_F	Forward Voltage		1.0	V	I_F = 30 mA
C_T	Capacitance		4.0	pF	V_R = 0.0 V, f = 1.0 MHz
T_{RR}	Reverse Recovery Time		4.0	ns	I_F = 10 mA V_R = 6.0 V I_{RR} = 1.0 mA, R_L = 100 ohms

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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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