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July 2009

1N4154

High Conductance Fast Diode

Features

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

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.



DO-35
Color Band Denotes Cathode

Absolute Maximum Ratings * $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Unit
W_{IV}	Working Inverse Voltage	35	V
I_O	Average Rectified Current	100	mA
I_F	DC Forward Current (I_F)	300	mA
i_f	Recurrent Peak Forward Current (I_F)	400	mA
$i_{F(surge)}$	Peak Forward Surge Current (I_{FSM}) Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0	A
		4.0	A
T_{STG}	Storage Temperature Range	-65 to +200	$^\circ\text{C}$
T_J	Operating Junction Temperature	175	$^\circ\text{C}$

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

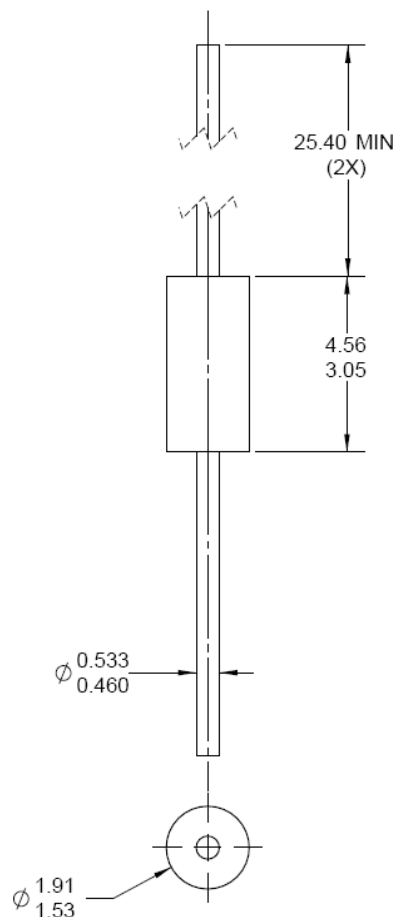
Thermal Characteristics

Symbol	Parameter	Value	Unit
P_D	Total Power Dissipation at $T_A = 25^\circ\text{C}$ Linear Derating Factor from $T_A = 25^\circ\text{C}$	500	mW
		3.33	mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	$^\circ\text{C}/\text{W}$

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max	Units
B_V	Breakdown Voltage	$I_R = 5.0\mu\text{A}$	35		V
I_R	Reverse Leakage	$V_R = 25\text{V}$ $V_R = 25\text{V}, T_A = 150^\circ\text{C}$		100 100	nA μA
V_F	Forward Voltage	$I_F = 30\text{mA}$		1.0	V
C_T	Capacitance	$V_R = 0, f = 1.0\text{MHz}$		4.0	pF
T_{RR}	Reverse Recovery Time	$I_F = 10\text{mA}, V_R = 6.0\text{V}$ $I_{RR} = 1.0\text{mA}, R_L = 100\Omega$		4.0	ns

Physical Dimensions (DO-35)









NOTES: UNLESS OTHERWISE SPECIFIED

- A) PACKAGE STANDARD REFERENCE: JEDEC DO-204, VARIATION AH.
- B) HERMETICALLY SEALED GLASS PACKAGE.
- C) PACKAGE WEIGHT IS 0.137 GRAM.
- D) ALL DIMENSIONS ARE IN MILLIMETERS.
- E) DRAWING FILE NAME: DO35AREV02



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