



# 1N4454

Small-Signal Diode  
Fast Switching Diode

## Features

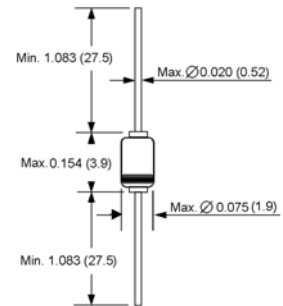
- ◆ Silicon Epitaxial Planar Diode
- ◆ Fast switching diode

## Mechanical Data

- ◆ Case: DO-34, DO-35 Glass Case
- ◆ Weight: approx. 0.13g



DO-204AH (DO-35 Glass)

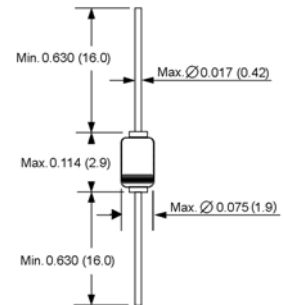


## Maximum Ratings and Thermal Characteristics

( $T_A=25^\circ\text{C}$  unless otherwise noted.)

Parameter	Symbol	Limit	Unit
Reverse voltage	$V_R$	75	Volts
Peak reverse voltage	$V_{RM}$	100	Volts
Maximum average rectified current half wave rectification with resistive load at $T_{amb}=25^\circ\text{C}$ and $f_{\geq}50\text{Hz}$ <sup>(1)</sup>	$I_{F(AV)}$	150	mA
Surge forward current at $t<1\text{s}$ and $T_j=25^\circ\text{C}$	$I_{FSM}$	500	mA
Maximum power dissipation at $T_{amb}=25^\circ\text{C}$ <sup>(1)</sup>	$P_{tot}$	500	mW
Maximum junction temperature	$T_j$	175	$^\circ\text{C}$
Storage temperature range	$T_S$	-65 to +175	$^\circ\text{C}$

DO-34 Glass



## Electrical Characteristics

( $T_A=25^\circ\text{C}$  unless otherwise noted.)

Parameter	Symbol	Min.	Max.	Unit
Maximum forward voltage drop at $I_F=10\text{mA}$	$V_F$	-	1.0	Volt
Leakage current at $V_R=50\text{V}$ at $V_R=75\text{V}$	$I_R$	-	100 5	nA uA
Reverse breakdown voltage tested with 100uA pulses	$V_{(BR)R}$	100	-	Volts
Capacitance at $V_F=V_R=0\text{V}$	$C_{tot}$	-	2.0	pF
Reverse recovery time from $I_F=10\text{mA}$ to $I_R=1\text{mA}$ , $V_R=6\text{V}$ , $R_i=100\Omega$	$t_{rr}$	-	4.0	ns
Thermal resistance junction to ambient air <sup>(1)</sup>	$R_{\theta JA}$	-	350	$^\circ\text{C/W}$
Rectification efficiency at $f=100\text{MHz}$ , $V_{RF}=2\text{V}$	$\eta_V$	0.45	-	-

**Notes:** 1. Valid provided that leads at a distance of 8mm from case are kept at ambient temperature

# RATINGS AND CHARACTERISTIC CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

