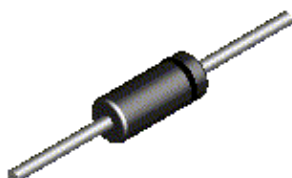


# 1N4454



DO-35

## High Conductance Ultra Fast Diode

Sourced from Process 1R. See MMBD1201-1205 for characteristics.

### Absolute Maximum Ratings\*

TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
$W_{IV}$	Working Inverse Voltage	50	V
$I_O$	Average Rectified Current	200	mA
$I_F$	DC Forward Current	400	mA
$i_f$	Recurrent Peak Forward Current	600	mA
$i_{f(surge)}$	Peak Forward Surge Current Pulse width = 1.0 second Pulse width = 1.0 microsecond	1.0 4.0	A A
$T_{stg}$	Storage Temperature Range	-65 to +200	°C
$T_J$	Operating Junction Temperature	175	°C

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

#### NOTES:

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### Thermal Characteristics

TA = 25°C unless otherwise noted

Symbol	Characteristic	Max	Units
		1N4454	
$P_D$	Total Device Dissipation Derate above 25°C	500 3.33	mW mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

# High Conductance Ultra Fast Diode

(continued)

1N4454

## Electrical Characteristics

T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
B <sub>V</sub>	Breakdown Voltage	I <sub>R</sub> = 5.0 μA	75		V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 50 V V <sub>R</sub> = 50 V, T <sub>A</sub> = 150°C		100 100	nA μA
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 250 μA I <sub>F</sub> = 1.0 mA I <sub>F</sub> = 2.0 mA I <sub>F</sub> = 10 mA	505 550 610	575 650 710 1.0	mV mV mV V
C <sub>O</sub>	Diode Capacitance	V <sub>R</sub> = 0, f = 1.0 MHz		4.0	pF
T <sub>RR</sub>	Reverse Recovery Time	I <sub>F</sub> = 10 mA, V <sub>R</sub> = 1.0 V, I <sub>rr</sub> = 1.0 mA, R <sub>L</sub> = 100 Ω		4.0	nS