

## SMD Switching Diode

### Features

- Fast Switching Speed
- Electrically Identical to Standard JEDEC
- High Conductance
- Axial Lead Package Ideally Suited for Automatic Insertion
- RoHS Compliant



DO-35



### Mechanical Data

<b>Case:</b>	Molded glass DO-35
<b>Terminals:</b>	Solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	Approx. 0.13 grams

### Maximum Ratings and Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	1N4454	Unit	Conditions
<b><math>V_R</math></b>	Reverse Voltage	50	V	
<b><math>V_{RRM}</math></b>	Peak Reverse Voltage	75	V	
<b><math>V_{RMS}</math></b>	RMS Voltage	50	V	
<b><math>I_{F(AV)}</math></b>	Maximum Average Forward Rectified Current	150	mA	$T_A=25^{\circ}\text{C}$ , $f \geq 50\text{Hz}$
<b><math>I_{FSM}</math></b>	Peak Forward Surge Current	500	mA	$t < 1\text{S}$ , $T_J=25^{\circ}\text{C}$
<b><math>P_{TOT}</math></b>	Power Dissipation at $T_A=25^{\circ}\text{C}$	500	mW	
<b><math>V_F</math></b>	Maximum Instantaneous Forward Voltage	1.0	V	$I_F=10\text{mA}$
<b><math>I_R</math></b>	Maximum Leakage Current	100	nA	$V_R=50\text{V}$ , $T_J=150^{\circ}\text{C}$

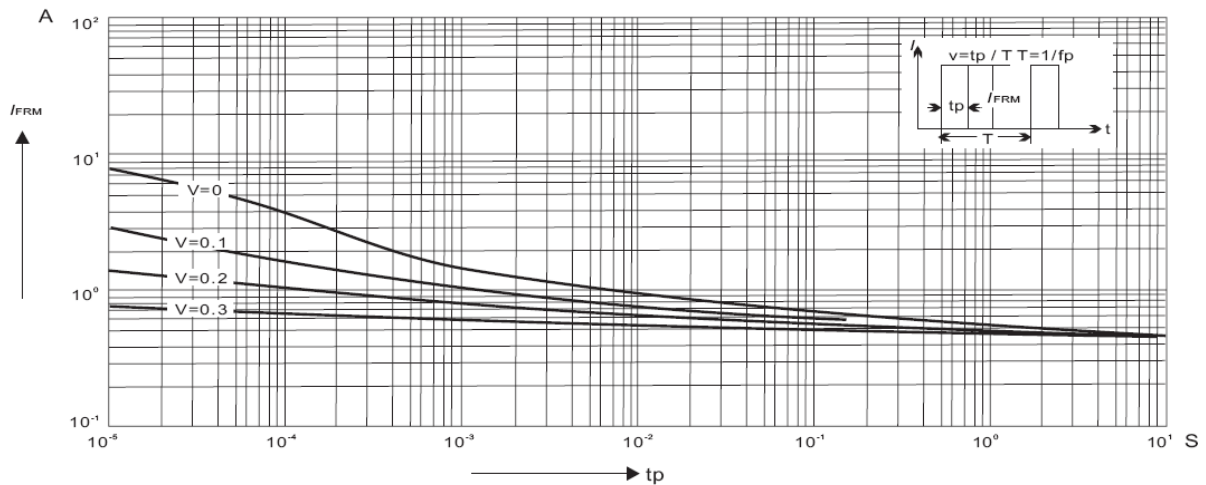
# SMD Switching Diode

## 1N4454

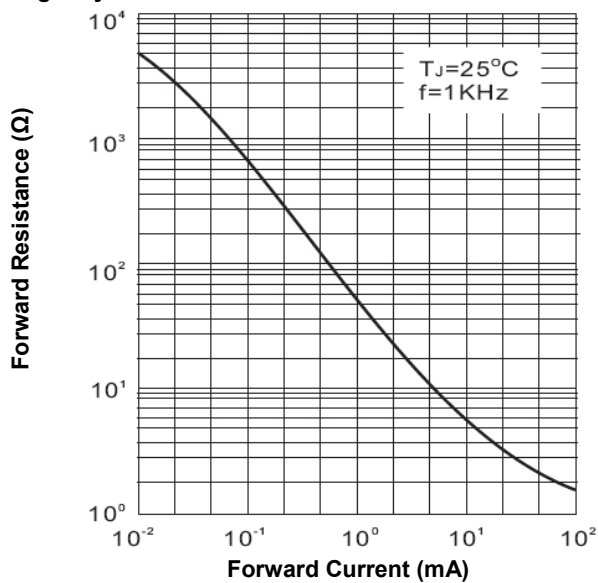
Symbol	Description	1N4454	Unit	Conditions
<b>C<sub>J</sub></b>	Maximum Capacitance	4	pF	V <sub>R</sub> =0, f=1MHz
<b>T<sub>rr</sub></b>	Maximum Reverse Recovery Time	4	nS	From I <sub>F</sub> =10mA to I <sub>R</sub> =1mA, V <sub>R</sub> =6V, R <sub>L</sub> =100Ω
<b>R<sub>thJA</sub></b>	Maximum Thermal Resistance	350	°C / W	
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-65 to +175	°C	

### Rating and Characteristics Curves

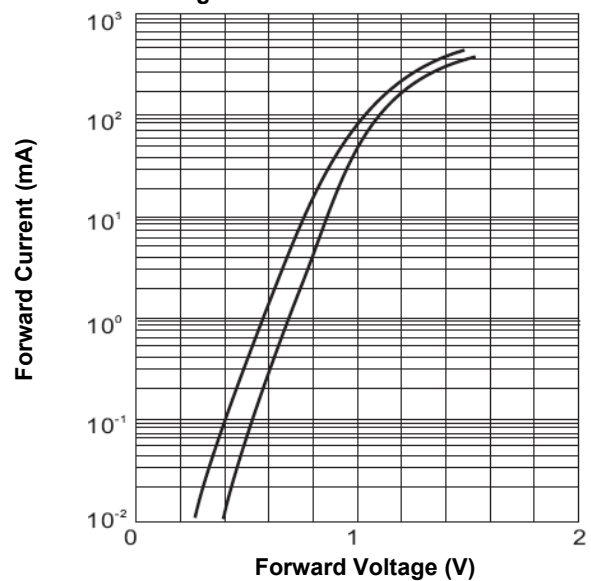
**Fig.1 Admissible Repetitive Peak Forward Current Vs Pulse Duration**



**Fig.2 Dynamic Forward Resistance Vs Forward Current**



**Fig.3 Forward Characteristics**



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Fig.4 Derating Curve

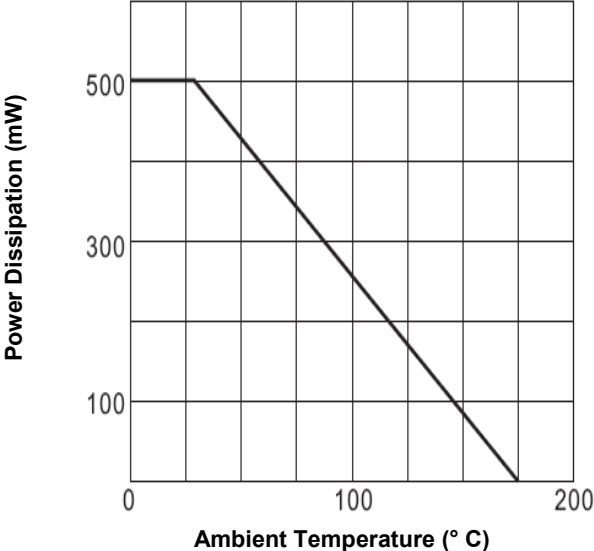
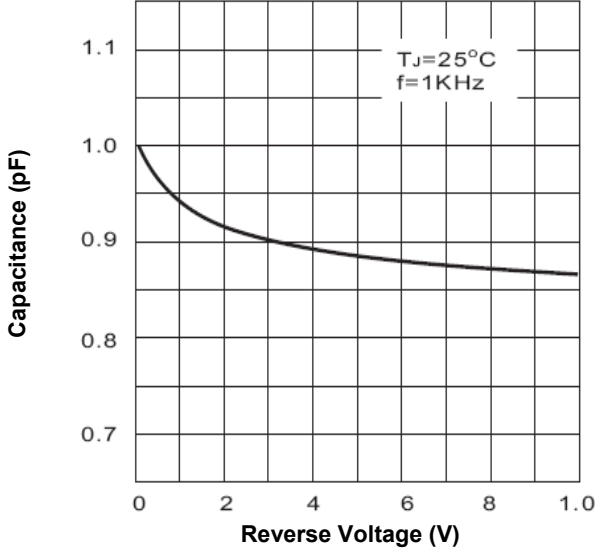
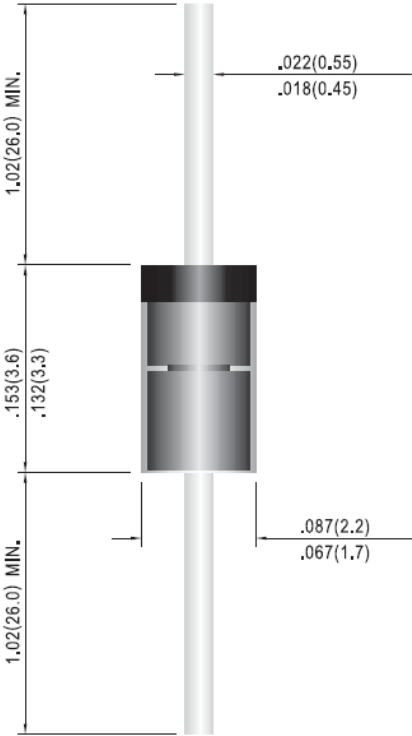


Fig.5 Typical Junction Capacitance



### Dimensions in mm (inch)



DO-35



### How to contact us:

#### **US HEADQUARTERS**

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800) TAITRON (800) 824-8766 (661) 257-6060

Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415

Email: [taitron@taitroncomponents.com](mailto:taitron@taitroncomponents.com)

Http://[www.taitroncomponents.com](http://www.taitroncomponents.com)

#### **TAITRON COMPONENTS MEXICO, S.A .DE C.V.**

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P. 42970  
MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

#### **TAITRON COMPONENTS INCORPORATED REPRESENTAÇÕES DO BRASIL LTDA**

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL

Tel: +55-11-5574-7949

Fax: +55-11-5572-0052

#### **TAITRON COMPONENTS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE**

METROBANK PLAZA, 1160 WEST YAN' AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-5424-9931