

## 1N3595



DO-35

# **Small Signal Diode**

**Absolute Maximum Ratings\*** 

 $T_A = 25$ °C unless otherwise noted

Symbol	Parameter	Value	Units
$V_{RRM}$	Maximum Repetitive Reverse Voltage	150	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	200	mA
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0 4.0	A A
T <sub>stg</sub>	Storage Temperature Range	-65 to +200	°C
TJ	Operating Junction Temperature	175	°C

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

### **Thermal Characteristics**

Symbol	Parameter	Value	Units
P <sub>D</sub>	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

## Electrical Characteristics T<sub>4</sub> = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
$V_R$	Breakdown Voltage	$I_R = 100  \mu A$	150		V
V <sub>F</sub>	Forward Voltage	$I_F = 1.0 \text{ mA}$ $I_F = 5.0 \text{ mA}$ $I_F = 10 \text{ mA}$ $I_F = 50 \text{ mA}$ $I_F = 100 \text{ mA}$ $I_F = 200 \text{ mA}$	0.52 0.60 0.65 0.75 0.79 0.83	0.68 0.75 0.80 0.88 0.92 1.00	V V V V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 125 V V <sub>R</sub> = 30 V, T <sub>A</sub> = 125°C V <sub>R</sub> = 125 V, T <sub>A</sub> = 125°C V <sub>R</sub> = 125 V, T <sub>A</sub> = 150°C		1 0.3 0.5 3	nA μA μA μA
C <sub>T</sub>	Total Capacitance	$V_R = 0, f = 1.0 \text{ MHz}$		8	pF
t <sub>rr</sub>	Reverse Recovery Time	$I_F = 10 \text{ mA}, V_R = 3.5 \text{ V},$ $R_L = 1.0 \text{ k}\Omega$		3	μS

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<sup>1)</sup> 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.

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