

August 2011

1N4447 **Small Signal Diode**



DO-35

Absolute Maximum Ratings* T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	100	V
I _{F(AV)}	Average Rectified Forward Current	200	mA
I _{FSM}	Non-repetitive 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.

- 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

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

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

Symbol	Parameter	Test Conditions	Min.	Max.	Units
V _R	Breakdown Voltage	I _R = 100μA I _R = 5.0μA	100 75		V V
V _F	Forward Voltage	I _F = 20mA		1.0	V
I _R	Reverse Leakage	V _R = 20V V _R = 20V, T _A = 150°C		25 50	nA μA
C _T	Total Capacitance	$V_R = 0, f = 1.0MHz$		2.0	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





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