

central™

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Manufacturers of World Class Discrete Semiconductors

1N4444

SILICON SWITCHING DIODE

JEDEC DO-35 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 1N4444 silicon planar epitaxial diode is characterized by its miniature size, ultra fast switching speed, low capacitance, low leakage, and high conductance. Accordingly, it is ideally suited for applications such as pulse applications, avalanche circuits, core drivers, and for any critical circuit requiring high conductance at power dissipation without sacrificing fast recovery capability.

MAXIMUM RATING (TA=25°C)

	<u>SYMBOL</u>		<u>UNIT</u>
Peak Repetitive Reverse Voltage	V _{RRM}	70	V
Peak Working Reverse Voltage	V _{RWM}	50	V
Average Forward Current	I ₀	200	mA
Forward Steady-State Current	I _F	250	mA
Recurrent Peak Forward Current	i _f	600	mA
Peak Forward Surge Current (1.0μs pulse)	I _{FSM}	4000	mA
Power Dissipation	P _D	500	mW
Operating and Storage			
Junction Temperature	T _J , T _{STG}	-65 to +200	°C

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNIT</u>
I _R	V _R =50V		50	nA
I _R	V _R =50V, TA=150°C		50	μA
B _{VR}	I _R =5.0μA	70		V
V _F	I _F =0.1mA	.440	.550	V
V _F	I _F =1.0mA	.560	.680	V
V _F	I _F =10mA	.690	.820	V
V _F	I _F =100mA	.850	1.0	V
C	V _R =0V		2.0	pF
t _{rr}	I _F =I _R =10mA, Recov to 1.0mA		7.0	ns