Data Sheet

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Manufacturers of World Class Discrete Semiconductors

1N3600
1N4150

SILICON SWITCHING DIODE

JEDEC DO-35 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 1N3600, 1N4150, 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. (Both devices have identical electrical and mechanical specifications).

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL		UNIT
Peak Working Inverse Voltage	V_{RWM}	50	V
Average Forward Current	I_O	200	mA
Forward Steady State Current	I_F	400	mA
Recurrent Peak Forward Current	i_f	600	mA
Peak Forward Surge Current (1.0s Pulse)	I_{FSM}	1.0	A
Peak Forward Surge Current (1.0μs Pulse)	I_{FSM}	4.0	A
Power Dissipation	P_D	500	mW
Operating and Storage Junction Temperature	T_J, T_{STG}	-65 to +200	°C

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_R	V_R=Rated V_{RWM}		100	nA
I_R	V_R=Rated V_{RWM}, T_A=150°C		100	μA
BV_R	I_R=5.0μA	75		V
V_F	I_F=1.0mA	0.54	0.62	V
V_F	I_F=10mA	0.66	0.74	V
V_F	I_F=50mA	0.76	0.86	V
V_F	I_F=100mA	0.82	0.92	V
V_F	I_F=200mA	0.87	1.0	V
C	V_R=0V, f=1.0MHz		2.5	pF
t_{fr}	V_{fr}=1.0V, I_f=200mA, t_r=0.4ns		10	ns
t_{rr}	I_f=I_r=10mA to 200mA, R_L=100Ω		4.0	ns
t_{rr}	I_f=I_r=200mA to 400mA, R_L=100Ω		6.0	ns