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Manufacturers of World Class Discrete Semiconductors
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1N3595

SILICON LOW LEAKAGE DIODE

JEDEC DO-35 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 1N3595 is an epitaxial planar silicon diode designed for low leakage, high conductance applications. Higher breakdown voltage devices are available on special order.

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

	<u>SYMBOL</u>		<u>UNITS</u>
Peak Repetitive Reverse Voltage	V_{RRM}	150	V
Peak Working Reverse Voltage	V_{RWM}	125	V
Average Forward Current	I_O	150	mA
Forward Steady-State Current	I_F	225	mA
Recurrent Peak Forward Current	i_f	600	mA
Peak Forward Surge Current (1.0s pulse)	I_{FSM}	500	mA
Peak Forward Surge Current (1.0 μ s pulse)	I_{FSM}	4.0	A
Power Dissipation	P_D	500	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>MAX</u>	<u>UNITS</u>
I_R	$V_R=125\text{V}$		1.0	nA
I_R	$V_R=125\text{V}, T_A=125^\circ\text{C}$		500	nA
I_R	$V_R=125\text{V}, T_A=150^\circ\text{C}$		3.0	μA
I_R	$V_R=30\text{V}, T_A=125^\circ\text{C}$		300	nA
BV_R	$I_R=100\mu\text{A}$	150		V
V_F	$I_F=1.0\text{mA}$	0.54	0.69	V
V_F	$I_F=5.0\text{mA}$	0.62	0.77	V
V_F	$I_F=10\text{mA}$	0.65	0.80	V
V_F	$I_F=50\text{mA}$	0.75	0.88	V
V_F	$I_F=100\text{mA}$	0.79	0.92	V
V_F	$I_F=200\text{mA}$	0.83	1.0	V
C_T	$V_R=0, f=1.0\text{MHz}$		8.0	pF
t_{rr}	$V_R=3.5\text{V}, I_F=10\text{mA}, R_L=1.0\text{k}\Omega$		3.0	μs