New Jersey Semi-Conductor Products, Inc.

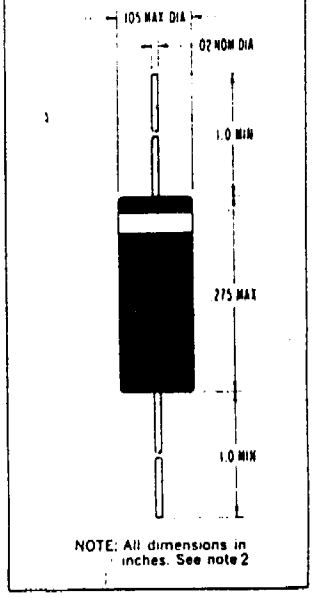
20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

1N3595

The 1N3595 is a high conductance extremely low leakage planar diode. Specified maximum values for voltage drop capacitance and leakage current mean flexibility in designing circuits which require large numbers of diodes. In those applications where reverse current is a critical design parameter, the inherent qualities of the Fairchild process eliminates the problem of leakage degradation.

PHYSICAL DIMENSIONS



NOTE: All dimensions in inches. See note 2

MAXIMUM RATINGS (25°C) (Note 1)

WIV	Working Inverse Voltage	125 V
I_O	Average rectified current	150 mA
I_F	Forward current steady state d.c.	225 mA
i_f	Recurrent peak forward current	450 mA
i_f (surge)	Peak forward surge current pulse width of 1 second	500 mA
i_f (surge)	Peak forward surge current pulse width of 1 μSec.	4000 mA
P	Power dissipation	500 mW
1/θ	Power derating factor	4 mW/°C
T_A	Operating temperature	−65°C to +150°C
T_{stg}	Storage temperature, ambient	−65°C to +175°C

ELECTRICAL SPECIFICATIONS (25°C unless otherwise noted)

Symbol	Characteristic	Min.	Max.	Units	Test Conditions
V_{F_1}	Forward Voltage	.83	1.00	Vdc	I_F = 200 mA
V_{F_2}	Forward Voltage	.79	.92	Vdc	I_F = 100 mA
V_{F_3}	Forward Voltage	.74	.88	Vdc	I_F = 50 mA
V_{F_4}	Forward Voltage	.65	.80	Vdc	I_F = 10 mA
V_{F_5}	Forward Voltage	.60	.75	Vdc	I_F = 5 mA
V_{F_6}	Forward Voltage	.52	.68	Vdc	I_F = 1 mA
I_{R_1}	Reverse Current		1.0	nA	V_R = 125 V
I_{R_2}	Reverse Current (125°C)		300	nA	V_R = 30 V
I_{R_3}	Reverse Current (125°C)		500	nA	V_R = 125 V
I_{R_4}	Reverse Current (150°C)		3.0	μA	V_R = 125 V
t_{rr}	Reverse Recovery Time		3.0	μSec	See Table III
C	Capacitance [Note 3]		8.0	pf	V_R = 0 V
BV	Breakdown Voltage	150		Vdc	I_R = 100 μA