	CHILD NDUCTOR®		
	1N3595		
Small	DO-35 Color Band Denotes Cathode		
Absolut	Color Band Denotes Cathode Signal Diode e Maximum Ratings* T <sub>A</sub> = 25°C unless otherwise noted		
	Color Band Denotes Cathode	Value	Units
Absolut	Color Band Denotes Cathode Signal Diode e Maximum Ratings* T <sub>A</sub> = 25°C unless otherwise noted	<b>Value</b> 150	Units V
Absolut Symbol	Color Band Denotes Cathode Signal Diode e Maximum Ratings* T <sub>A</sub> = 25°C unless otherwise noted Parameter		
Absolut Symbol V <sub>RRM</sub>	Color Band Denotes Cathode Signal Diode e Maximum Ratings* T <sub>A</sub> = 25°C unless otherwise noted Parameter Maximum Repetitive Reverse Voltage	150	V
Absolut Symbol V <sub>RRM</sub> I <sub>F(AV)</sub>	Color Band Denotes Cathode         Signal Diode         e Maximum Ratings*         T <sub>A</sub> = 25°C unless otherwise noted         Parameter         Maximum Repetitive Reverse Voltage         Average Rectified Forward Current         Non-repetitive Peak Forward Surge Current         Pulse Width = 1.0 second         Pulse Width = 1.0 microsecond	150 200 1.0	V mA A

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES: 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 <sub>D</sub>	Power Dissipation	500	mW
$R_{ ext{ hetaJA}}$	Thermal Resistance, Junction to Ambient	300	°C/W

<b>Electrical Characteristics</b>	T <sub>4</sub> = 25°C unless otherwise noted
-----------------------------------	--

Symbol	Parameter	Test Conditions	Min	Max	Units
V <sub>R</sub>	Breakdown Voltage	I <sub>R</sub> = 100 μA	150		V
V <sub>F</sub>	Forward Voltage	$I_{F} = 1.0 \text{ mA}$ $I_{F} = 5.0 \text{ mA}$ $I_{F} = 10 \text{ mA}$ $I_{F} = 50 \text{ mA}$ $I_{F} = 100 \text{ mA}$ $I_{F} = 200 \text{ mA}$	0.52 0.60 0.65 0.75 0.79 0.83	0.68 0.75 0.80 0.88 0.92 1.00	
I <sub>R</sub>	Reverse Current	$V_{R} = 125 V$ $V_{R} = 30 V, T_{A} = 125^{\circ}C$ $V_{R} = 125 V, T_{A} = 125^{\circ}C$ $V_{R} = 125 V, T_{A} = 125^{\circ}C$ $V_{R} = 125 V, T_{A} = 150^{\circ}C$	0.83	1 0.3 0.5 3	ν nA μA μA μA
CT	Total Capacitance	$V_{R} = 0, f = 1.0 \text{ MHz}$		8	pF
t <sub>rr</sub>	Reverse Recovery Time	$I_F = 10 \text{ mA}, V_R = -3.5 \text{ V},$ R <sub>1</sub> = 1.0 kΩ		3	μs

©2002 Fairchild Semiconductor Corporation

#### TRADEMARKS

The following are registered and unregistered trademarks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACEx™ Bottomless™ CoolFET™ CROSSVOLT™ DenseTrench™ DOME™ **EcoSPARK™** E<sup>2</sup>CMOS<sup>™</sup> EnSigna™ FACT™ FACT Quiet Series™ FAST ® FASTr™ FRFET™ GlobalOptoisolator<sup>™</sup> POP<sup>™</sup> GTO™ HiSeC™ ISOPLANAR™ LittleFET™ MicroFET™ MicroPak™ MICROWIRE™

**OPTOLOGIC™** OPTOPLANAR™ PACMAN™ Power247™ PowerTrench<sup>®</sup> QFET™ QS™ QT Optoelectronics<sup>™</sup> Quiet Series<sup>™</sup> SILENT SWITCHER®

SMART START™ VCX™ STAR\*POWER™ Stealth™ SuperSOT<sup>™</sup>-3 SuperSOT<sup>™</sup>-6 SuperSOT<sup>™</sup>-8 SyncFET™ TinyLogic™ TruTranslation<sup>™</sup> UHC™ UltraFET<sup>®</sup>

STAR\*POWER is used under license

### DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY. FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

## LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, or (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

#### **PRODUCT STATUS DEFINITIONS**

**Definition of Terms** 

Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.
	In Design First Production Full Production