

SEMICONDUCTOR TM

FAIRCHILD

# **Information Only Data Sheet**

# FINAL REVERSE CURRENT & FORWARD VOLTAGE LIMITS MIGHT BE INCREASED SLIGHTLY

# **General Description:**

An Ultra Low Leakage Diode in the DO-35 package. The forward voltage is typically greater than 0.5 volts at 1.0 micro-ampere.

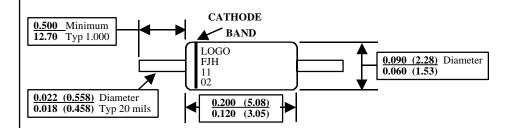
This product is light sensitive, any damage to the body coating will affect the reverse leakage when exposed to light.

# Ultra Low Leakage Diode

Absolute Maximum Ratings\* TA = 25°C unless otherwise noted

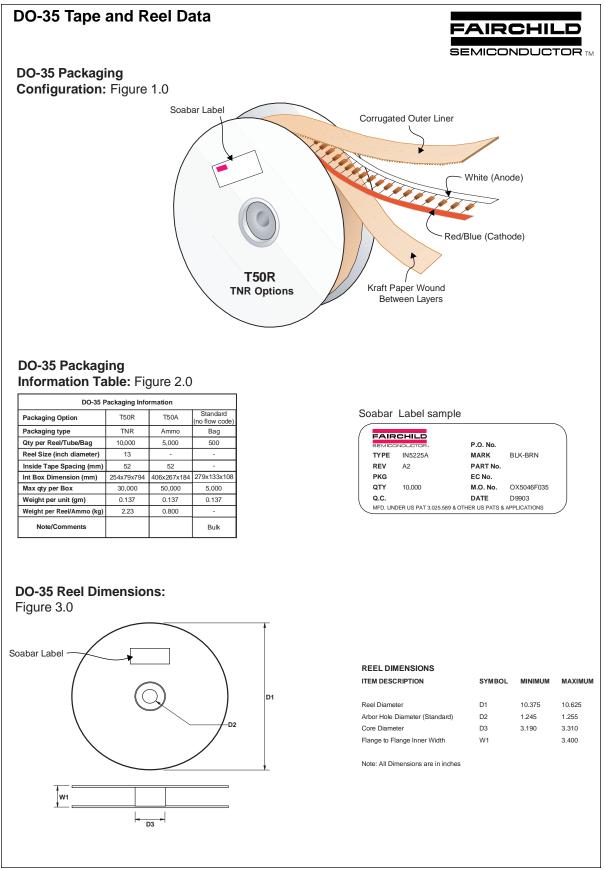
Sym	Parameter	Value	Units
T <sub>stg</sub>	Storage Temperature	-55 to +200	°C
TJ	Operating Junction Temperature	175	oC
P <sub>D</sub>	Total Power Dissipation at $T_A = 25^{\circ}C$	250	mW
	Linear Derating Factor from $T_A = 25^{\circ}C$	1.67	mW/ <sup>o</sup> C
R <sub>OJA</sub>	Thermal Resistance Junction-to-Ambient	300	°C/W
W <sub>iv</sub>	Working Inverse Voltage	25	V
۱ <sub>۶</sub>	DC Forward Current (IF)	150	mA

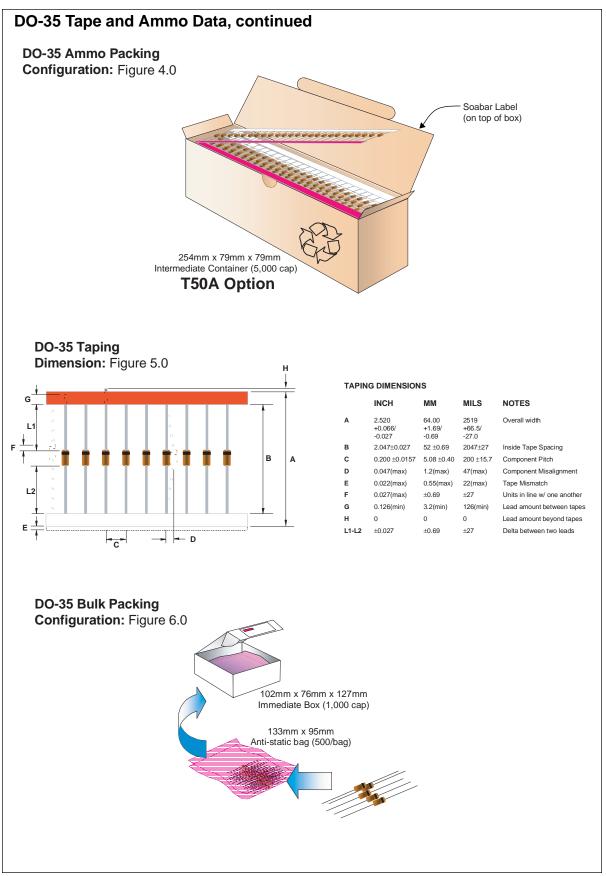
\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired



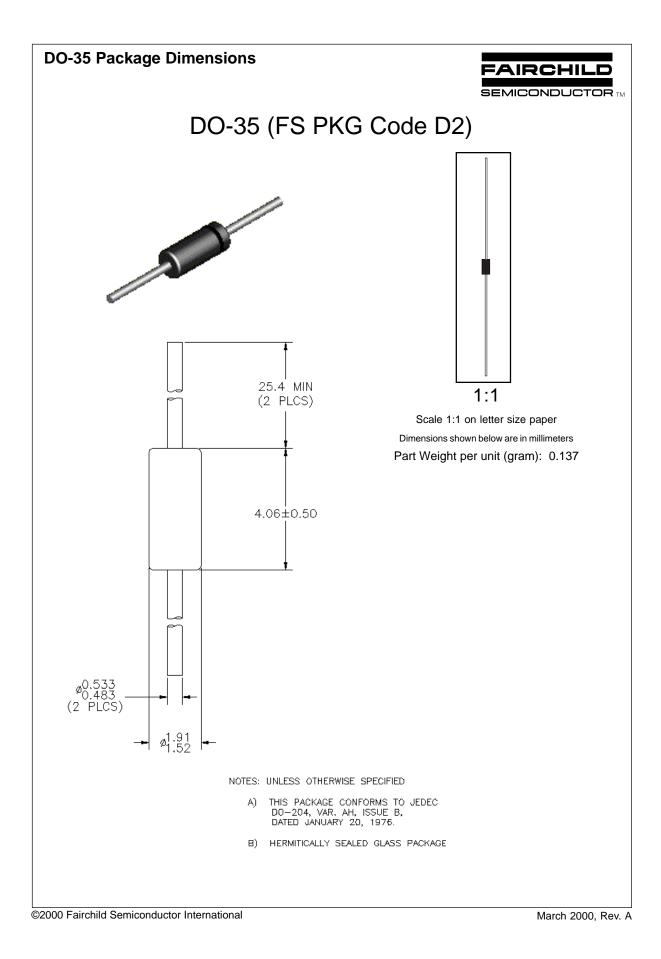
**Electrical Characteristics** TA = 25°C unless otherwise noted

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
B <sub>V</sub>	Breakdown Voltage	30		V	I <sub>R</sub> = 5.0 uA
I <sub>R</sub>	Reverse Leakage		100	pА	V <sub>R</sub> = 25 V
V <sub>F</sub>	Forward Voltage	500 650 750	600 750 850 1.10	mV mV mV V	$I_{F} = 1.0 \text{ uA}$ $I_{F} = 100 \text{ uA}$ $I_{F} = 1.0 \text{ mA}$ $I_{F} = 10 \text{ mA}$
C <sub>T</sub>	Diode Capacitance		3.5	рF	V <sub>R</sub> = 0 V, f = 1.0 MHz
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### PRODUCT STATUS DEFINITIONS

## **Definition of Terms**

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	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.
No Identification Needed	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.
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