

# Silicon Diode

## **1N483B**

70V/500mA

# DATASHEET

OEM – Fairchild

Source: Fairchild Databook 1978

**1N482B • 1N483B • 1N484B • 1N485B • 1N486B****GENERAL PURPOSE, LOW LEAKAGE DIODES**

DIFFUSED SILICON PLANAR

- $V_F \dots 1.0 \text{ V (MAX) @ } 100 \text{ mA}$
- $I_R \dots 25 \text{ nA (MAX) @ WIV}$

**ABSOLUTE MAXIMUM RATINGS (Note 1)****Temperatures**

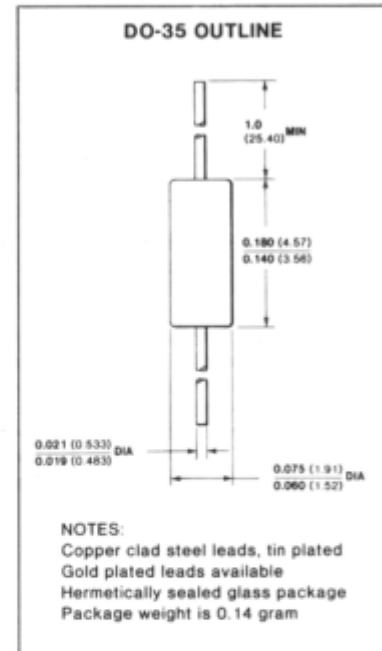
Storage Temperature Range	-65°C to +200°C
Maximum Junction Operating Temperature	+175°C
Lead Temperature (from 25°C)	+260°C

**Power Dissipation (Note 2)**

Maximum Total Power Dissipation at 25°C Ambient	500 mW
Linear Power Derating Factor (from 25°C)	3.33 mW / °C

**Maximum Voltage and Currents**

	1N482B	1N483B	1N484B	1N485B	1N486B
WIV Working Inverse Voltage	36 V	70 V	130 V	180 V	225 V
$I_O$ Average Rectified Current					200 mA
$I_F$ Continuous Forward Current					500 mA
$i_f$ Peak Repetitive Forward Current					600 mA
$i_f(\text{surge})$ Peak Forward Surge Current					
Pulse Width = 1 s					1.0
Pulse Width = 1 $\mu\text{s}$					4.0

**ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)**

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS	
$V_F$	Forward Voltage		1.0	V	$I_F = 100 \text{ mA}$	
$I_R$	Reverse Current	1N482B - 1N485B		25	nA	$V_R = \text{Rated WIV}$ $V_R = \text{Rated WIV}, T_A = 150^\circ\text{C}$ $V_R = 225 \text{ V}$ $V_R = 225 \text{ V}, T_A = 150^\circ\text{C}$
		1N486B		5.0	$\mu\text{A}$	
				50	nA	
				10	$\mu\text{A}$	
BV	Breakdown Voltage	1N482B	40	V	$I_R = 100 \mu\text{A}$	
		1N483B	80	V	$I_R = 100 \mu\text{A}$	
		1N484B	150	V	$I_R = 100 \mu\text{A}$	
		1N485B	200	V	$I_R = 100 \mu\text{A}$	
		1N486B	250	V	$I_R = 100 \mu\text{A}$	

**NOTES:**

1. These ratings are limiting values above which the serviceability of the diode may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
3. For product family characteristic curves, refer to Chapter 4, D2.

**CURVE SET NUMBER D2**  
**LOW LEAKAGE SMALL SIGNAL DIODE**

**TYPICAL ELECTRICAL CHARACTERISTIC CURVES**  
 AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE NOTED

