Silicon Diode

1N485B

180V/500mA

DATASHEET

OEM – Fairchild

Source: Fairchild Databook 1978

Datasheet Rev. 1.3 – 02/19 – data without warranty / liability

1N482B · 1N483B · 1N484B · 1N485B · 1N486B

GENERAL PURPOSE, LOW LEAKAGE DIODES

DIFFUSED SILICON PLANAR

- V_F . . . 1.0 V (MAX) @ 100 mA
- I_R . . . 25 nA (MAX) @ WIV

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

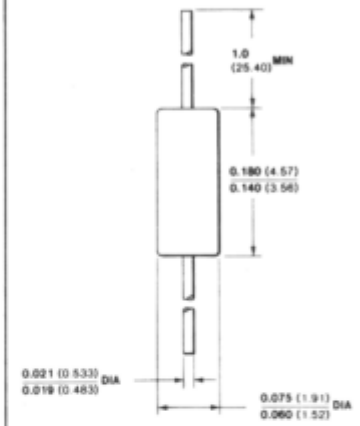
Storage Temperature Range	−65°C to +200°C
Maximum Junction Operating Temperature	+175°C
Lead Temperature (from 25°C)	+260°C

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		**IN482B**	**IN483B**	**IN484B**	**IN485B**	**IN486B**
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
$i_{f(surge)}$	Peak Forward Surge Current					
	Pulse Width = 1 s					1.0
	Pulse Width = 1 μs					4.0

DO-35 OUTLINE



NOTES:
Copper clad steel leads, tin plated
Gold plated leads available
Hermetically sealed glass package
Package weight is 0.14 gram

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 mA
I_R	Reverse Current	1N482B – 1N485B		25	nA	V_R = Rated WIV
				5.0	μA	V_R = Rated WIV, T_A = 150°C
		1N486B		50	nA	V_R = 225 V
				10	μA	V_R = 225 V, T_A = 150°C
BV	Breakdown Voltage	1N482B	40		V	I_R = 100 μA
		1N483B	80		V	I_R = 100 μA
		1N484B	150		V	I_R = 100 μA
		1N485B	200		V	I_R = 100 μA
		1N486B	250		V	I_R = 100 μA

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.

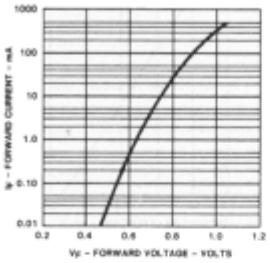
CURVE SET NUMBER D2

LOW LEAKAGE SMALL SIGNAL DIODE

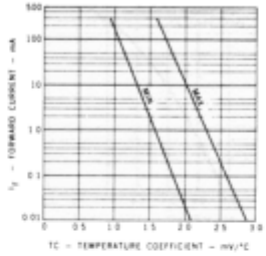
TYPICAL ELECTRICAL CHARACTERISTIC CURVES

AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE NOTED

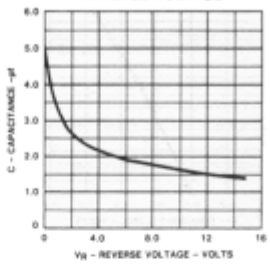
FORWARD VOLTAGE VERSUS FORWARD CURRENT



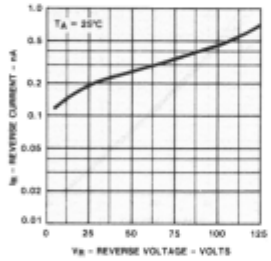
FORWARD CURRENT VERSUS TEMPERATURE COEFFICIENT



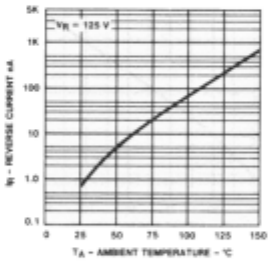
CAPACITANCE VERSUS REVERSE VOLTAGE



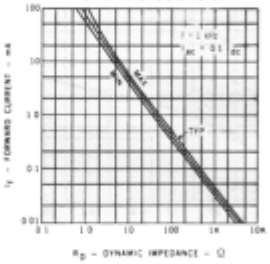
REVERSE VOLTAGE VERSUS REVERSE CURRENT



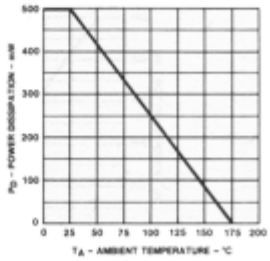
REVERSE CURRENT VERSUS AMBIENT TEMPERATURE



DYNAMIC IMPEDANCE VERSUS FORWARD CURRENT



POWER DERATING CURVE



AVERAGE RECTIFIED CURRENT AND FORWARD CURRENT VERSUS AMBIENT TEMPERATURE