

Silicon Diode

1N486B

225V/500mA

DATASHEET

OEM – Fairchild

Source: Fairchild Databook 1978

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**

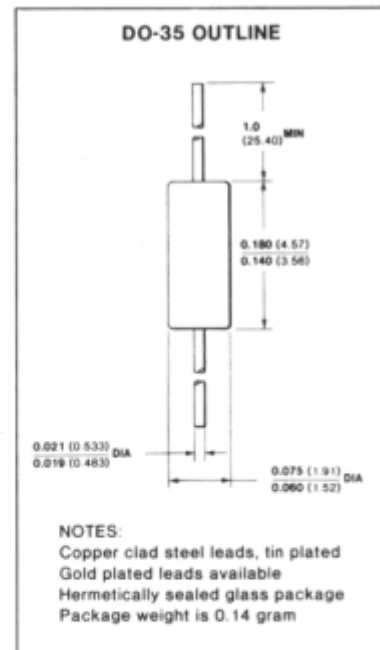
Storage Temperature Range	-65°C to +200°C
Maximum Junction Operating Temperature	+175°C
Lead Temperature (from 25°C)	+260°C

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

	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 μ 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	$I_F = 100$ mA	
I_R	Reverse Current	1N482B - 1N485B		25	nA	$V_R =$ Rated WIV $V_R =$ Rated WIV, $T_A = 150^\circ\text{C}$ $V_R = 225$ V $V_R = 225$ V, $T_A = 150^\circ\text{C}$
		1N486B		5.0	μ A	
				50	nA	
				10	μ A	
BV	Breakdown Voltage	1N482B	40	V	$I_R = 100$ μ A	
		1N483B	80	V	$I_R = 100$ μ A	
		1N484B	150	V	$I_R = 100$ μ A	
		1N485B	200	V	$I_R = 100$ μ A	
		1N486B	250	V	$I_R = 100$ μ 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

