

# Silicon Diode

## **1N462A**

60V/500mA

# DATASHEET

OEM – Fairchild

Source: Fairchild Databook 1978

## IN461A • IN462A • IN463A • IN464A

### GENERAL PURPOSE, HIGH CONDUCTANCE DIODES

DIFFUSED SILICON PLANAR

- $V_F$ ... 1.0 V (MAX) @ 100 mA
- $I_R$ ... 500 nA (MAX) @ WIV

#### ABSOLUTE MAXIMUM RATINGS (Note 1)

##### Temperatures

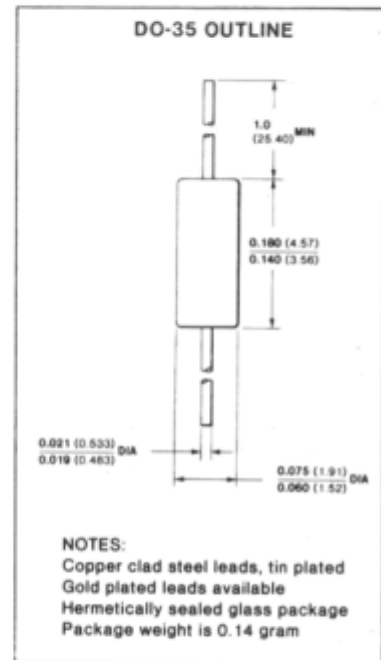
Storage Temperature Range	-65°C to +200°C
Maximum Junction Operating Temperature	+175°C
Lead Temperature	+260°C

##### 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

	IN461A	IN462A	IN463A	IN464A
WIV Working Inverse Voltage	25 V	60 V	175 V	125 V
$I_O$ Average Rectified Current	200 mA	200 mA	200 mA	200 mA
$I_F$ Continuous Forward Current	500 mA	500 mA	500 mA	500 mA
$i_f$ Peak Repetitive Forward Current	600 mA	600 mA	600 mA	600 mA
$i_f$ (surge) Peak Forward Surge Current				
Pulse Width = 1 s	1.0 A	1.0 A	1.0 A	1.0 A
Pulse Width = 1 $\mu$ s	4.0 A	4.0 A	4.0 A	4.0 A



#### 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		500 30	nA $\mu$ A	$V_R =$ Rated WIV $V_R =$ Rated WIV, $T_A = 150^\circ\text{C}$
BV	Breakdown Voltage	IN461A IN462A IN463A IN464A	30 70 200 150	V V V V	$I_R = 100$ $\mu$ A $I_R = 100$ $\mu$ A $I_R = 100$ $\mu$ A $I_R = 100$ $\mu$ A

#### NOTES:

- These ratings are limiting values above which the serviceability of the diode may be impaired.
- These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
- 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

