

# 1N458 • 1N458A

## LOW LEAKAGE

DIFFUSED SILICON PLANAR\* DIODES

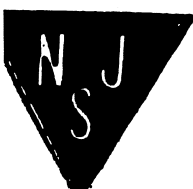
- BV . . . 150 V (MIN) @ 100  $\mu$ A
- I<sub>R</sub> . . . 25 nA (MAX) @ 125 V 1N458

### ABSOLUTE MAXIMUM RATINGS (Note 1)

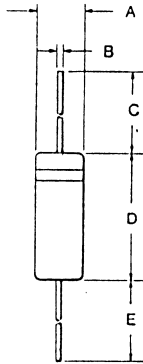
<b>Maximum Temperatures</b>		
Storage Temperature		-65°C to +200°C
Operating Temperature		175°C
<b>Maximum Power Dissipation</b>		
Total Dissipation at 25°C Ambient Temperature		400 mW
<b>Maximum Voltage and Currents</b>		
WIV Working Inverse Voltage		125 V
I <sub>O</sub> Average Rectified Current		55 mA
I <sub>F</sub> Forward Current Steady State DC		115 mA
I <sub>f</sub> Recurrent Peak Forward Current		175 mA
i <sub>f</sub> (surge) Peak Forward Surge Current		500 mA
	Pulse Width = 1.0 s	2.0 A
	Pulse Width = 1.0 $\mu$ s	

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

SYMBOL	CHARACTERISTIC	1N458		1N458A		UNITS	TEST CONDITIONS
		MIN.	MAX.	MIN.	MAX.		
V <sub>F</sub>	Forward Voltage		1.0			V	I <sub>F</sub> = 7.0 mA
I <sub>R</sub>	Reverse Current		25		1.0	V	I <sub>F</sub> = 100 mA
					5.0	nA	V <sub>R</sub> = 125 V
			5.0	5.0		nA	V <sub>R</sub> = 125 V
BV	Breakdown Voltage	150		150		V	V <sub>R</sub> = 125 V, T <sub>A</sub> = 150°C
C	Capacitance (Note 2)		6.0			pF	I <sub>R</sub> = 100 $\mu$ A V <sub>R</sub> = 0, f = 1.0 MHz



**Glass Diode (DO-7) outline**



NOTES: See table for dimensions in inches and millimeters  
 .020 diameter dumet leads, tinned or gold-plated  
 Hermetically sealed glass  
 Package weight is 0.25 grams

DIM.	INCHES			MILLIMETERS		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A			0.105			2.67
B		0.02			0.508	
C	1.0			25.40		
D			0.300			7.62
E	1.0			25.40		