

# New Jersey Semi-Conductor Products, Inc.

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## 1N458 • 1N458A

LOW LEAKAGE

DIFFUSED SILICON PLANAR\* DIODES

- BV ... 150 V (MIN) @ 100  $\mu$ A
- IR ... 25 nA (MAX) @ 125 V 1N458

### ABSOLUTE MAXIMUM RATINGS (Note 1)

#### Maximum Temperatures

Storage Temperature	-65°C to +200°C
Operating Temperature	175°C

#### Maximum Power Dissipation

Total Dissipation at 25°C Ambient Temperature	400 mW
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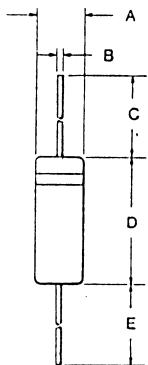
#### Maximum Voltage and Currents

WIV	Working Inverse Voltage	125 V
IO	Average Rectified Current	55 mA
IF	Forward Current Steady State DC	115 mA
If	Recurrent Peak Forward Current	175 mA
if (surge)	Peak Forward Surge Current	
	Pulse Width = 1.0 s	500 mA
	Pulse Width = 1.0 $\mu$ s	2.0 A

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

SYMBOL	CHARACTERISTIC	1N458		1N458A		UNITS	TEST CONDITIONS
		MIN.	MAX.	MIN.	MAX.		
VF	Forward Voltage	1.0		1.0		V	IF = 7.0 mA
IR	Reverse Current	25		5.0		nA	IF = 100 mA
				5.0		nA	VR = 125 V
BV	Breakdown Voltage	5.0		5.0		μA	VR = 125 V
C	Capacitance (Note 2)	150	6.0	150		V	VR = 125 V, TA = 150°C
						pF	IR = 100 μA
							VR = 0, f = 1.0 MHz

(DO-7) outline  
Glass Diode



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		

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