

T-01-09

# LOW LEAKAGE DIODES

1N456 • 1N456A • 1N457 • 1N457A  
1N458 • 1N458A • 1N459 • 1N459A

## ABSOLUTE MAXIMUM RATINGS

- $I_R$  25 nA @ WIV
- C 6.0 pF

### Temperatures

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

### Power Dissipation

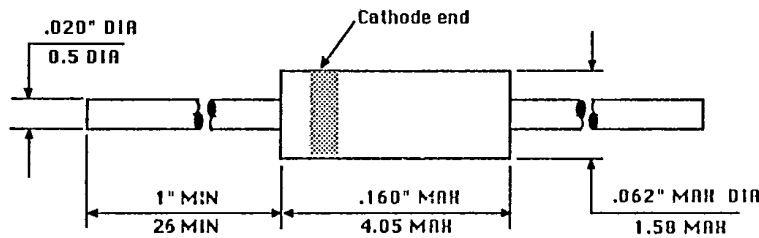
Maximum Total Power Dissipation at 25 °C Ambient	500mW
Linear Power Derating Factor	3.33 mW/°C

### Maximum Voltage and Currents

	1N456/A	1N457/A	1N458/A	1N459/A
WIV Working Inverse Voltage	25V	60V	125V	175V
IO Average Rectified Current				200mA
$I_F$ Continuous Forward Current				500mA
$I_{FR}$ Peak Repetitive Forward Current				600mA
$I_{FS}$ (surge) Peak Forward Surge Current				4.0 A
Pulse Width = 1µs				1.0A
Pulse Width = 1s				

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

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
$V_F$	Forward Voltage 1N456A/7A/8A/9A		1.0	V	$I_F = 100$ mA
	1N456		1.0	V	$I_F = 40$ mA
	1N457		1.0	V	$I_F = 20$ mA
	1N458		1.0	V	$I_F = 7$ mA
	1N459		1.0	V	$I_F = 3$ mA
$I_R$	Reverse Current		25	nA	$V_R =$ Rated WIV
			5.0	µA	$V_R =$ Rated WIV, $T_A = 150$ °C
$B_V$	Breakdown Voltage	1N456/A	30	V	$I_R = 100$ µA
		1N457/A	70	V	$I_R = 100$ µA
		1N458/A	150	V	$I_R = 100$ µA
		1N459/A	200	V	$I_R = 100$ µA
C	Capacitance		6.0	pF	$V_R = 0, f = 1$ MHz



DO-35 PACKAGE

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