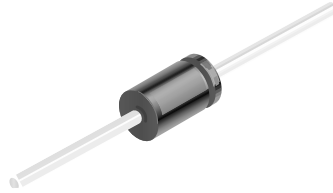




**THE DATASHEET OF  
1N457ATR**



# 1N457/A



**DO-35**

Color Band Denotes Cathode

## Small Signal Diode

### Absolute Maximum Ratings\*

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value	Units
$V_{RRM}$	Maximum Repetitive Reverse Voltage	70	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
$I_{FSM}$	Non-repetitive Peak Forward Surge Current		
	Pulse Width = 1.0 second	1.0	A
	Pulse Width = 1.0 microsecond	4.0	A
$T_{stg}$	Storage Temperature Range	-65 to +200	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	175	$^\circ\text{C}$

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**NOTES:**

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### Thermal Characteristics

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	$^\circ\text{C}/\text{W}$

### Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
$V_R$	Breakdown Voltage	$I_R = 100 \mu\text{A}$	70		V
$V_F$	Forward Voltage	<b>1N457</b> $I_F = 20 \text{ mA}$		1.0	V
		<b>1N457A</b> $I_F = 100 \text{ mA}$		1.0	V
$I_R$	Reverse Current	$V_R = 60 \text{ V}$		25	nA
		$V_R = 60 \text{ V}, T_A = 150^\circ\text{C}$		5	$\mu\text{A}$
$C_T$	Total Capacitance	<b>1N457</b> $V_R = 0, f = 1.0 \text{ MHz}$		8.0	pF

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