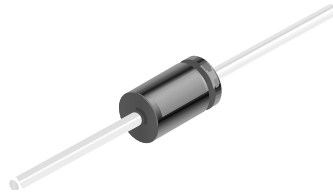


# 1N457/A



**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<br>Pulse Width = 1.0 second<br>Pulse Width = 1.0 microsecond | 1.0<br>4.0  | A<br>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   | $^\circ\text{C/W}$ |

## 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   | $I_F = 20 \text{ mA}$                         |     | 1.0 | V             |
|        |                   | $I_F = 100 \text{ mA}$                        |     | 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 | $V_R = 0, f = 1.0 \text{ MHz}$                |     | 8.0 | pF            |

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|--------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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