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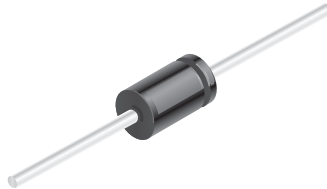
# 1N5282

## Small Signal Diode

November 2009



1N5282 — Small Signal Diode



DO-35

Color Band Denotes Cathode

### Absolute Maximum Ratings\* $T_A=25^{\circ}\text{C}$ unless otherwise noted

| Symbol      | Parameter                                                                                              | Value       | Units              |
|-------------|--------------------------------------------------------------------------------------------------------|-------------|--------------------|
| $V_{RRM}$   | Maximum Repetitive Reverse Voltage                                                                     | 80          | 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         | A                  |
|             |                                                                                                        | 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:

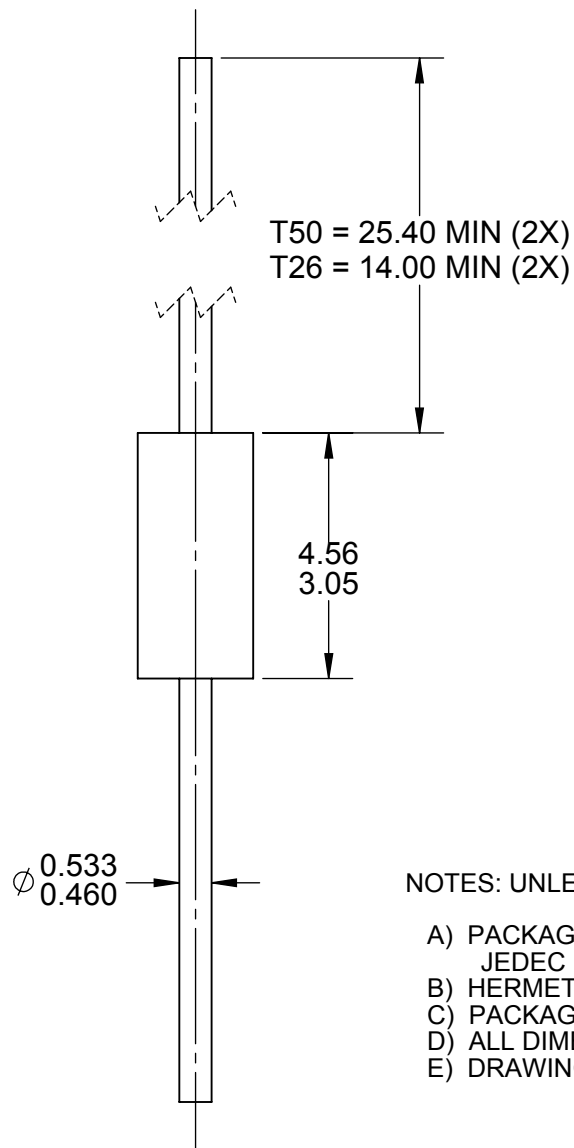
- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### Thermal Characteristics

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

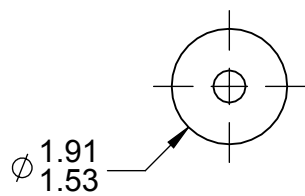
**Electrical Characteristics**  $T_A=25^{\circ}\text{C}$  unless otherwise noted

| Symbol    | Parameter             | Test Conditions                                                             | Min  | Max   | Units         |
|-----------|-----------------------|-----------------------------------------------------------------------------|------|-------|---------------|
| $V_R$     | Breakdown Voltage     | $I_R = 5\ \mu\text{A}$                                                      | 80   |       | V             |
| $V_F$     | Forward Voltage       | $I_F = 0.1\ \text{mA}$                                                      | 0.45 | 0.49  | V             |
|           |                       | $I_F = 1.0\ \text{mA}$                                                      | 0.55 | 0.60  | V             |
|           |                       | $I_F = 10\ \text{mA}$                                                       | 0.67 | 0.725 | V             |
|           |                       | $I_F = 100\ \text{mA}$                                                      | 0.80 | 0.90  | V             |
|           |                       | $I_F = 300\ \text{mA}$                                                      | 0.92 | 1.1   | V             |
|           |                       | $I_F = 500\ \text{mA}$                                                      | 1.05 | 1.3   | V             |
| $I_R$     | Reverse Current       | $V_R = 55\ \text{V}$                                                        |      | 100   | nA            |
|           |                       | $V_R = 55\ \text{V}, T_A = 150^{\circ}\text{C}$                             |      | 100   | $\mu\text{A}$ |
| $C_T$     | Total Capacitance     | $V_R = 0, f = 1.0\ \text{MHz}$                                              |      | 2.5   | pF            |
| $t_{rr1}$ | Reverse Recovery Time | $I_F = I_R = 10\ \text{mA}, R_L = 100\ \Omega$<br>$I_{rr} = 1.0\ \text{mA}$ |      | 4     | ns            |
| $t_{rr2}$ | Reverse Recovery Time | $I_F = I_R = 200\ \text{mA}, R_L = 100\ \Omega$<br>$I_{rr} = 20\ \text{mA}$ |      | 4     | ns            |



NOTES: UNLESS OTHERWISE SPECIFIED

- A) PACKAGE STANDARD REFERENCE:  
JEDEC DO-204, VARIATION AH.
- B) HERMETICALLY SEALED GLASS PACKAGE.
- C) PACKAGE WEIGHT IS 0.137 GRAM.
- D) ALL DIMENSIONS ARE IN MILLIMETERS.
- E) DRAWING FILE NAME: DO35AREV03



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