SWITCHING DIODE

| 1N914 | VOLTAGE RANGE <br> CURRENT |
| :--- | :--- |

## FEATURES

- Fast Switching speed
- General purpose switching applications


## MECHANICAL DATA

- Case: DO-35
- Leads: Axial, solderable per MIL-STD-202 Method 208C
- Polarity: Color band denotes cathode end
- Weight: 0.0045 ounce, 0.13 gram, approx.



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at $25^{\circ} \mathrm{C}$ ambient temperature unless otherwise specified

|  | SYMBOLS |  | UNIT |
| :---: | :---: | :---: | :---: |
| Non-Repetitive Peak Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 100 | Volt |
| Maximum Repetitive Peak Reverse Voltage | $\mathrm{V}_{\mathrm{RM}}$ | 75 | Volts |
| Forward Continuous Current | $\mathrm{I}_{\mathrm{FM}}$ | 200 | mA |
| $\begin{aligned} & \text { Non-Repetitive Peak Forward Average Current @ } \frac{\mathrm{T}}{\mathrm{~T}}=1.0 \mu \mathrm{~S} \\ & \mathrm{~T}=1.0 \mathrm{~S} \end{aligned}$ | $\mathrm{I}_{\text {FSM }}$ | $\begin{aligned} & 4.0 \\ & 1.0 \end{aligned}$ | Amps |
| Maximum Forward Voltage @ 10mA | $\mathrm{V}_{\mathrm{F}}$ | 1.0 | Volts |
| Maximum Leakage Current, (Note 1) @$\mathrm{V}_{\mathrm{R}}=75 \mathrm{~V}$ <br> $\mathrm{~V}_{\mathrm{R}}=20 \mathrm{~V}, \mathrm{~T}_{\mathrm{J}}=150^{\circ} \mathrm{C}$ <br> $\mathrm{V}_{\mathrm{R}}=20 \mathrm{~V}$ | $\mathrm{I}_{\mathrm{R}}$ | $\begin{aligned} & \hline 5.0 \\ & 50 \\ & 25 \\ & \hline \end{aligned}$ | $\mu \mathrm{A}$ |
| Maximum Reverse Recovery Time $\mathrm{I}_{\mathrm{F}}=10 \mathrm{~mA}, \mathrm{I}_{\mathrm{R}}=10 \mathrm{~mA}, \mathrm{I}_{\mathrm{RR}}=1 \mathrm{~mA}, \mathrm{R}_{\mathrm{L}}=100 \Omega$ | $\mathrm{t}_{\mathrm{rr}}$ | 4 | nS |
| Power dissipation (Note 1) | $\mathrm{P}_{\text {TOT }}$ | 500 | mW |
| Typical Junction Capacitance, $\mathrm{V}_{\mathrm{F}}=1 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\mathrm{J}}$ | 4.0 | pF |
| Typical Thermal Resistance | $\mathrm{R}_{\theta \mathrm{JA}}$ | 300 | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
| Operating Junction Temperature Range | $\mathrm{T}_{\mathrm{J}}$ | (-65 to +175 ) | ${ }^{0} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\text {STG }}$ | (-65 to +175) | ${ }^{\circ} \mathrm{C}$ |

## Notes:

1. Valid provided leads at a distance of 0.31 " $(8 \mathrm{~mm})$ from case are kept at ambient temperature


Figure 1. Forward Current vs. Forward Voltage


Figure 2. Reverse Current vs. Reverse Voltage

