## BAND SWITCHING DIODE

## Applications

- Low loss band switching in VHF television tuners
- Surface mount band-switching circuits


## PINNING

| PIN | DESCRIPTION |
| :---: | :--- |
| 1 | Cathode |
| 2 | Anode |



Top View
Marking Code: "T"
Simplified outline SOD-523 and symbol

Absolute Maximum Ratings ( $\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}$ )

| Parameter | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 35 | V |
| Continuous Forward Current | $\mathrm{I}_{\mathrm{F}}$ | 100 | mA |
| Power Dissipation $\left(\mathrm{T}_{\mathrm{S}}=90^{\circ} \mathrm{C}\right)$ | $\mathrm{P}_{\text {tot }}$ | 715 | mW |
| Junction Temperature | $\mathrm{T}_{J}$ | -65 to +150 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\mathrm{s}}$ | -65 to +150 | ${ }^{\circ} \mathrm{C}$ |

Characteristics at $\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}$

| Parameter | Symbol | Max. | Unit |
| :--- | :---: | :---: | :---: |
| Forward Voltage <br> at $\mathrm{I}_{\mathrm{F}}=10 \mathrm{~mA}$ | $\mathrm{~V}_{\mathrm{F}}$ | 1 | V |
| Reverse Current <br> at $\mathrm{V}_{\mathrm{R}}=25 \mathrm{~V}$ | $\mathrm{I}_{\mathrm{R}}$ | 50 | nA |
| Diode Forward Resistance <br> at $\mathrm{I}_{\mathrm{F}}=2 \mathrm{~mA}, \mathrm{f}=100 \mathrm{MHz}$ | $\mathrm{r}_{\mathrm{D}}$ | 0.7 | $\Omega$ |
| Capacitance <br> at $\mathrm{f}=1 \mathrm{MHz}, \mathrm{V}_{\mathrm{R}}=6 \mathrm{~V}$ | $\mathrm{C}_{\mathrm{d}}$ | 1.2 | pF |


$\mathrm{f}=1 \mathrm{MHz} ; \mathrm{T}_{\mathrm{J}}=2 \mathbf{2 5}^{\circ} \mathrm{C}$.
Fig. 1 Diode capacitance as a function of reverse voltage; typical values.

$\mathrm{f}=100 \mathrm{MHz} ; \mathrm{T}_{\mathrm{j}}=25^{\circ} \mathrm{C}$.
Fig. 2 Diode forward . .u.stance as a function of forward current; typical values.

## PACKAGE OUTLINE



| UNIT | A | $\mathrm{b}_{\mathrm{p}}$ | C | D | E | $\mathrm{H}_{\mathrm{E}}$ | V | $\angle$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| mm | 0.70 | 0.4 | 0.135 | 1.25 | 0.85 | 1.7 | 0.1 | $5^{\circ}$ |
|  | 0.60 | 0.3 | 0.127 | 1.15 | 0.75 | 1.5 |  |  |

