## BA782; BA783

## Features

- Silicon Epitaxial Planar Diode Switches
- For high-speed switching application and TV tuners in the frequency range of 50. . . 1000 MHz . The dynamic for ward resistance is constant and very small over a wide range of frequency and forward current. The reverse capacitance is also small and largely independent of the reverse voltage.
- These diodes are also available in SOD-323 case with the type designations BA782S and BA783S.


Absolute Maximum Ratings $\mathrm{Ta}=25^{\circ} \mathrm{C}$

| Parameter | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Reverse Voltage | $\mathrm{VR}_{\mathrm{R}}$ | 35 | V |
| Forward Continuous Current at Tamb $=25^{\circ} \mathrm{C}$ | IF | 100 | mA |
| Junction Temperature | $\mathrm{T}_{\mathrm{j}}$ | 125 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | Ts | -55 to +150 | ${ }^{\circ} \mathrm{C}$ |

Electrical Characteristics $\mathrm{Ta}=25^{\circ} \mathrm{C}$

| Parameter | Symbol | M in | Typ | M ax | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Forward Voltage at $\mathrm{IF}=100 \mathrm{~mA}$ | $V$ (BR) |  |  | 1 | V |
| Leakage Current at VR $=20 \mathrm{~V}$ | IR |  |  | 50 | nA |
| Dynamic Forward Resistance  <br> at $f=50$ to $1000 \mathrm{MHz}, ~ I F=3 \mathrm{~mA}$ BA782 <br> at $\mathrm{f}=50$ to $1000 \mathrm{MHz}, I_{F}=10 \mathrm{~mA}$ BA783 <br>  BA782 <br> BA783  | rf |  |  | $\begin{aligned} & 0.7 \\ & 1.2 \\ & 0.5 \\ & 0.9 \end{aligned}$ | $\Omega$ |
| ```Capacitance at VR=1 V,f=1 MHz at VR=3V,f=1 MHz BA782 BA783``` | Ctot |  |  | $\begin{gathered} 1.5 \\ 1.25 \\ 1.2 \end{gathered}$ | pF |
| Series Inductance across Case | Ls |  | 2.5 |  | nH |

