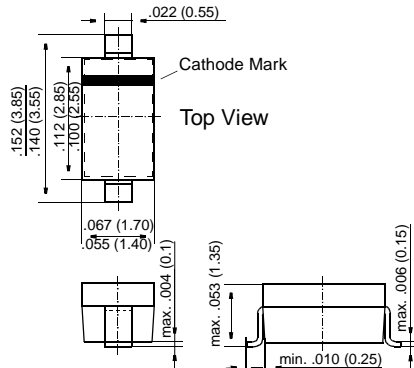


# BA782, BA783

## Bandswitching Diodes

### SOD-123



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Silicon Epitaxial Planar Diode Switches
- ◆ For electronic bandswitching in radio and TV tuners in the frequency range of 50 ... 1000 MHz. The dynamic forward 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.



### MECHANICAL DATA

**Case:** SOD-123 Plastic Case

**Weight:** approx. 0.01 g

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Value	Unit
Reverse Voltage	$V_R$	35	V
Forward Continuous Current at $T_{amb} = 25\text{ °C}$	$I_F$	100	mA
Junction Temperature	$T_j$	125	°C
Storage Temperature Range	$T_S$	-55 to +125	°C

# BA782, BA783

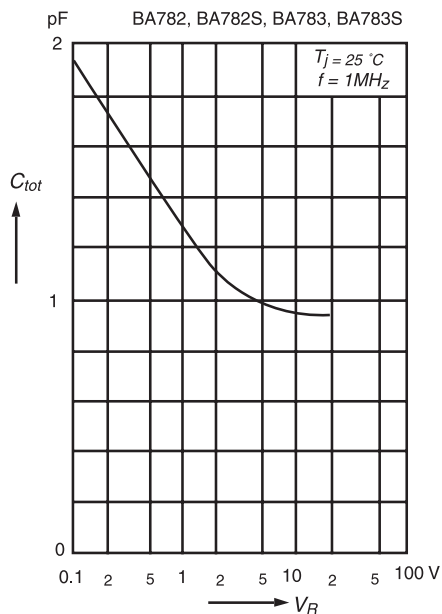
## ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 100$ mA	$V_F$	–	–	1	V
Leakage Current at $V_R = 20$ V	$I_R$	–	–	50	nA
Dynamic Forward Resistance at $f = 50$ to 1000 MHz, $I_F = 3$ mA  at $f = 50$ to 1000 MHz, $I_F = 10$ mA	<b>BA782</b> $r_f$	–	–	0.7	$\Omega$
	<b>BA783</b> $r_f$	–	–	1.2	$\Omega$
	<b>BA782</b> $r_f$	–	–	0.5	$\Omega$
	<b>BA783</b> $r_f$	–	–	0.9	$\Omega$
Capacitance at $V_R = 1$ V, $f = 1$ MHz at $V_R = 3$ V, $f = 1$ MHz	<b>BA782</b> $C_{tot}$	–	–	1.5	pF
	<b>BA783</b> $C_{tot}$	–	–	1.25	pF
	$C_{tot}$	–	–	1.2	pF
Series Inductance across Case	$L_S$	–	2.5	–	nH

## RATINGS AND CHARACTERISTIC CURVES BA782, BA783

Capacitance  
versus reverse voltage



Dynamic forward resistance  
versus forward voltage

