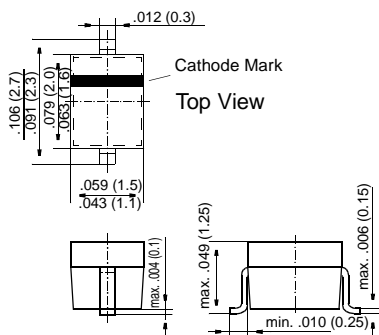


# BA782S, BA783S

## Bandswitching Diodes

### SOD-323



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-123 case with the type designations BA782 and BA783.



### MECHANICAL DATA

**Case:** SOD-323 Plastic Package  
**Weight:** approx. 0.004 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

# BA782S, BA783S

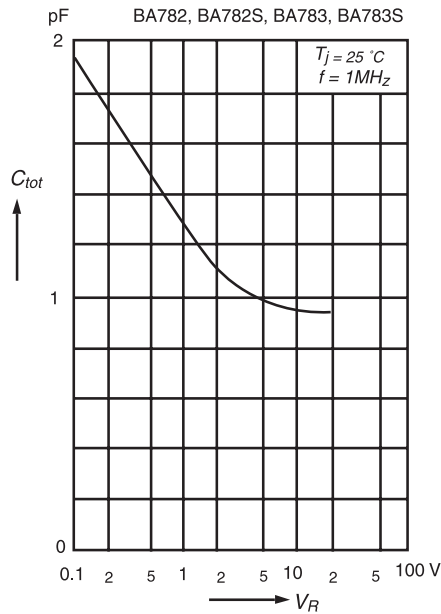
## ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Forward Voltage at $I_F = 100 \text{ mA}$	$V_F$	-	-	1	V
Leakage Current at $V_R = 20 \text{ V}$	$I_R$	-	-	50	nA
Dynamic Forward Resistance at $f = 50 \text{ to } 1000 \text{ MHz}$ , $I_F = 3 \text{ mA}$  at $f = 50 \text{ to } 1000 \text{ MHz}$ , $I_F = 10 \text{ mA}$	<b>BA782S</b> $r_f$	-	-	0.7	$\Omega$
	<b>BA783S</b> $r_f$	-	-	1.2	$\Omega$
	<b>BA782S</b> $r_f$	-	-	0.5	$\Omega$
	<b>BA783S</b> $r_f$	-	-	0.9	$\Omega$
Capacitance at $V_R = 1 \text{ V}$ , $f = 1 \text{ MHz}$ at $V_R = 3 \text{ V}$ , $f = 1 \text{ MHz}$	<b>BA782S</b> $C_{tot}$	-	-	1.5	pF
	<b>BA783S</b> $C_{tot}$	-	-	1.25	pF
	<b>BA783S</b> $C_{tot}$	-	-	1.2	pF
Series Inductance across Case	$L_S$	-	2.5	-	nH

## RATINGS AND CHARACTERISTIC CURVES BA782S, BA783S

Capacitance  
versus reverse voltage



Dynamic forward resistance  
versus forward voltage

