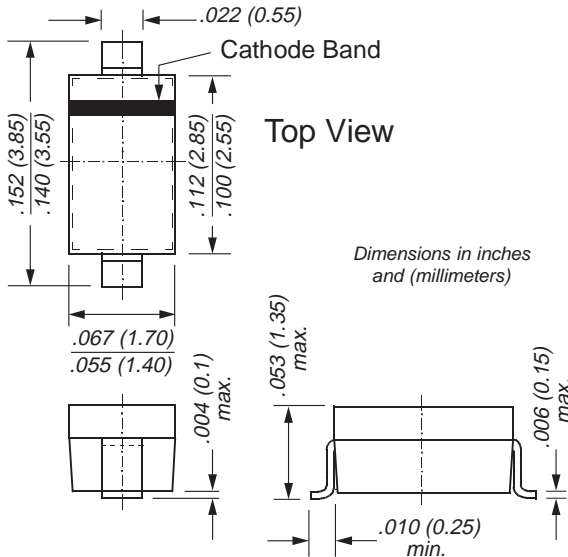
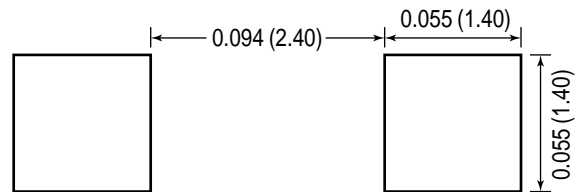


Bandswitching Diodes


SOD-123

Mounting Pad Layout


Features

- Silicon Epitaxial Planar Diode Switches
- For electric 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: approximately 0.01g

Cathode Band Color: Blue

Packaging Codes/Options:

D3/10K per 13" reel (8mm tape), 30K/box

D4/3K per 7" reel (8mm tape), 30K/box

Maximum Ratings and Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

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

BA782 and BA783

Vishay Semiconductors
formerly General Semiconductor



Electrical Characteristics

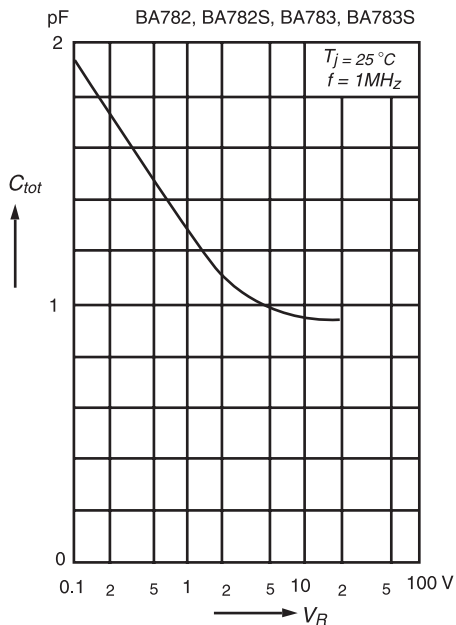
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit	
Forward Voltage	V_F	$I_F = 100\text{mA}$	—	—	1	V	
Leakage Current	I_R	$V_R = 20\text{V}$	—	—	50	nA	
Dynamic Forward Resistance	BA782 BA783	r_f	$f = 50\dots1000\text{MHz}, I_F = 3\text{mA}$	—	—	0.7	Ω
				—	—	1.2	
Dynamic Forward Resistance	BA782 BA783	r_f	$f = 50\dots1000\text{MHz}, I_F = 10\text{mA}$	—	—	0.5	Ω
				—	—	0.9	
Capacitance	BA782 BA783	C_{tot}	$V_R = 1\text{V}, f = 1\text{MHz}$	—	—	1.5	pF
			$V_R = 3\text{V}, f = 1\text{MHz}$	—	—	1.25	
Series Inductance across Case	L_S	—	—	2.5	—	nH	

Ratings and

Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Capacitance
versus reverse voltage



Dynamic forward resistance
versus forward voltage

