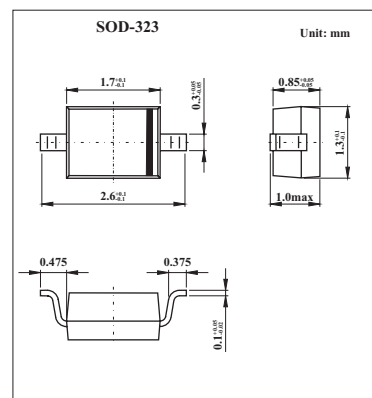


Tuner Diodes

BB731S

■ Features

- Silicon epitaxial planar capacitance diodes with very wide effective capacitance variation for tuning the VHF range 41 □ 170 MHz in hyper hyperband television tuners.
- These diodes are available as singles or as matched sets of two or more units according to the tracking condition described in the table of characteristics.

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	32	V
Ambient Temperature	T_{amb}	125	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +125	$^\circ\text{C}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{BR(R)}$	$I_R = 100 \mu\text{A}$	32			V
Leakage Current	I_R	$V_R = 30 \text{ V}$			10	nA
Capacitance	C_{tot}	$f = 1 \text{ MHz}; V_R = 28 \text{ V}$	2.9		3.4	pF
		$f = 1 \text{ MHz}; V_R = 1 \text{ V}$	62		76	
Effective Capacitance Ratio	$C_{d(1V)}/C_{d(28V)}$	$f = 1 \text{ MHz}; V_R = 1 \text{ to } 28 \text{ V}$	19.5			
Series Resistance	r_s	$f = 300 \text{ MHz}, C_{tot} = 25 \text{ pF}$		1		Ω
Series Inductance	L_s			2.5		nH