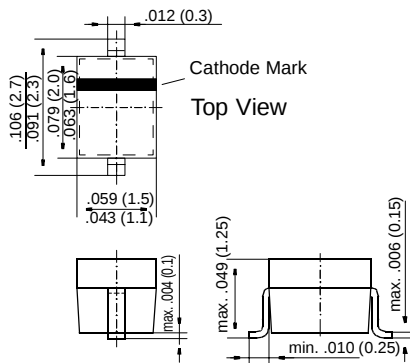


BB369S

Tuner Diodes

SOD-323



Dimensions in inches and (millimeters)

FEATURES

- ◆ Silicon epitaxial planar capacitance diodes with very wide effective capacitance variation for tuning the VHF range and hyperband in 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.



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	32	V
Ambient Temperature	T_{amb}	125	°C
Storage Temperature Range	T_S	-55 to +125	°C

BB369S

ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu A$	$V_{(BR)R}$	32	—	—	V
Leakage Current at $V_R = 30 V$	I_R	—	—	10	nA
Capacitance, $f = 1 MHz$ at $V_R = 28 V$ at $V_R = 25 V$ at $V_R = 1 V$ at $V_R = 2 V$	C_{tot} C_{tot} C_{tot} C_{tot}	2.65 2.75 55.0 42.5	— — — —	2.88 3.0 60.5 47.5	pF pF pF pF
Effective Capacitance Ratio, $f = 1 MHz$ at $V_R = 1$ to $28 V$	$\frac{C_{tot}(1 V)}{C_{tot}(28V)}$	20.0	—	23.0	—
Effective Capacitance Ratio at $V_R = 2$ to $25 V$	$\frac{C_{tot}(2 V)}{C_{tot}(25V)}$	15.3	—	17.8	—
Effective Capacitance Ratio at $V_R = 1$ to $2 V$	$\frac{C_{tot}(1 V)}{C_{tot}(2 V)}$	1.29	—	—	—
Series Resistance at $f = 300 MHz$, $C_{tot} = 25 pF$	r_s	—	1.0	—	Ω
Series Inductance	L_S	—	2.5	—	nH
For any two of six consecutive diodes in the carrier tape, the maximum capacitance deviation in the reverse bias voltage of $V_R = 0.5$ to $28 V$ is max. 3.0%					