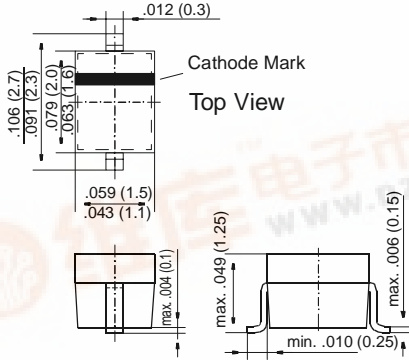


BB369S

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

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ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	32	–	–	V
Leakage Current at $V_R = 30 \text{ V}$	I_R	–	–	10	nA
Capacitance, $f = 1 \text{ MHz}$ at $V_R = 28 \text{ V}$ at $V_R = 25 \text{ V}$ at $V_R = 1 \text{ V}$ at $V_R = 2 \text{ V}$	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, $f = 1 \text{ MHz}$ at $V_R = 1 \text{ to } 28 \text{ V}$	$\frac{C_{\text{tot}}(1 \text{ V})}{C_{\text{tot}}(28\text{V})}$	20.0	–	23.0	–
Effective Capacitance Ratio at $V_R = 2 \text{ to } 25 \text{ V}$	$\frac{C_{\text{tot}}(2 \text{ V})}{C_{\text{tot}}(25\text{V})}$	15.3	–	17.8	–
Effective Capacitance Ratio at $V_R = 1 \text{ to } 2 \text{ V}$	$\frac{C_{\text{tot}}(1 \text{ V})}{C_{\text{tot}}(2 \text{ V})}$	1.29	–	–	–
Series Resistance at $f = 300 \text{ MHz}$, $C_{\text{tot}} = 25 \text{ pF}$	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 $V_R = 0.5 \text{ to } 28 \text{ V}$ is max. 3.0%					