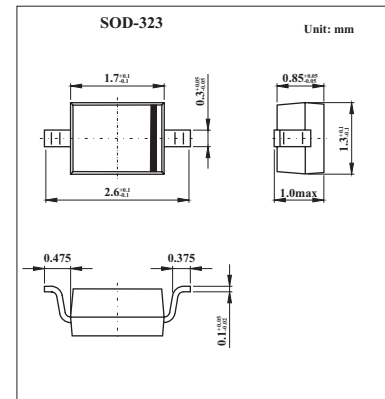


## Tuner Diodes

## BB729S

## ■ Features

- Silicon epitaxial planar capacitance diodes with very wide effective capacitance variation for tuning the whole range of VHF CTV 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                 | $C_{tot}$              | $f = 1\text{MHz}; V_R = 28\text{V}$             | 2.4  |     | 2.9 | pF       |
|                             |                        | $f = 1\text{MHz}; V_R = 1\text{V}$              | 36   |     | 42  |          |
| Effective Capacitance Ratio | $C_{d(1V)}/C_{d(28V)}$ | $f = 1\text{MHz}; V_R = 1\text{ to }28\text{V}$ | 13.5 |     |     |          |
| Series Resistance           | $r_s$                  | $f = 470\text{MHz}, C_{tot} = 25\text{pF}$      |      | 0.8 |     | $\Omega$ |
| Series Inductance           | $L_s$                  |   |      | 2.5 |     | nH       |