Agilent Technologies
Innovating the HP Way

Schottky Barrier Diodes for General Purpose Applications

Technical Data

1N5711
1N5712
5082-2300 Series
5082-2800 Series
5082-2900

Features

- **Low Turn-On Voltage**
  As Low as 0.34 V at 1 mA
- **Pico Second Switching Speed**
- **High Breakdown Voltage**
  Up to 70 V
- **Matched Characteristics Available**

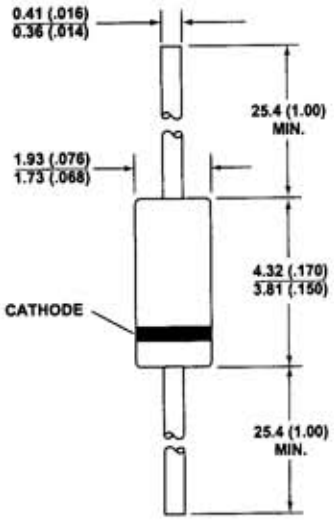
Description/Applications

The 1N5711, 1N5712, 5082-2800/10/11 are passivated Schottky barrier diodes which use a patented "guard ring" design to achieve a high breakdown voltage. Packaged in a low cost glass package, they are well suited for high level detecting, mixing, switching, gating, log or A-D converting, video detecting, frequency discriminating, sampling, and wave shaping.

The 5082-2835 is a passivated Schottky diode in a low cost glass package. It is optimized for low turn-on voltage. The 5082-2835 is particularly well suited for the UHF mixing needs of the CATV marketplace.

The 5082-2300 Series and 5082-2900 devices are unpassivated Schottky diodes in a glass package. These diodes have extremely low 1/f noise and are ideal for low noise mixing, and high sensitivity detecting. They are particularly well suited for use in Doppler or narrow band video receivers.

Outline 15



DIMENSIONS IN MILLIMETERS AND (INCHES).

Maximum Ratings

Junction Operating and Storage Temperature Range
- 5082-2303, -2900 ..... -60°C to +100°C
- 1N5711, 1N5712, 5082-2800/10/11 ..... -65°C to +200°C
- 5082-2835 ..... -60°C to +150°C

DC Power Dissipation
(Measured in an infinite heat sink at T_{CASE} = 25°C)
Derate linearly to zero at maximum rated temperature
- 5082-2303, -2900 ..... 100 mW
- 1N5711, 1N5712, 5082-2800/10/11 ..... 250 mW
- 5082-2835 ..... 150 mW

Peak Inverse Voltage ..... V_{BR}