



# Agilent R422C

## mm-Wave Planar-Doped Barrier Detector

Data Sheet

**26.5 to 40.0 GHz**

### Outstanding Performance

The Planar-Doped Barrier (PDB) diode technology combines the best characteristics of point-contact and low barrier Schottky to provide exceptional performance. This PDB diode technology provides detectors with broadband flatness, excellent square-law response, and low SWR.

These specifications along with the rugged design of the detector make it an excellent value.



### Agilent R422C Specifications

**Frequency Range:** 26.5 to 40 GHz

**Frequency Response:**  $\pm 0.6$  dB

**SWR:** 1.78

**Low Level Sensitivity:** 0.42 mV/ $\mu$ W

**Maximum Operating Input:** 100 mW

**Typical Short-Term Maximum Input** (less than one minute):  
1 watt

**Video Impedance:** 0.5 to 5 k $\Omega$  (nominal 1.5 k $\Omega$ )

**Noise** (peak to peak with CW power applied to produce 100 mV output, 400 kHz BW): <50  $\mu$ V

**Output Polarity** (Standard): Negative

### Environmental Capabilities

**Operating Temperature:**  $-65^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$

**Temperature Cycling:** MIL-STD-883, Method 1010.1 ( $-65^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$ )

**Output Connector:** BNC (female)

**Equivalent Flange:** UG-599/U, MIL-F-3922/54-003

**Fits Waveguide Size:** EIA WR-28, MIL-W-85/3-006



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