



Agilent 8473D

Planar-Doped Barrier Detector

0.01 to 33.0 GHz

Data Sheet



This Planar-Doped Barrier (PDB) detector, combines the best characteristics of point-contact and low barrier Schottky to provide performance never before achievable. This new PDB diode technology provides detectors with broadband-flatness, excellent square-law response, and low SWR.

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

8473D Specifications¹

Frequency range:² 0.01 to 33.0 GHz

Frequency response:

±0.25 dB (0.01 to 14.0 GHz)

±0.4 dB (0.01 to 26.5 GHz)

±1.25 dB (0.01 to 33.0 GHz)

(±2.0 dB typical to 40 GHz)

SWR:

1.2 (0.01 to 14 GHz)

1.4 (14 to 26.5 GHz)

3.0 (26.5 to 33.0 GHz)

(3.0 typical to 40 GHz)

Low level sensitivity: > 0.4 mV/mW

Maximum operating input: 200 mW

**Typical short-term maximum input
(less than 1 minute):** 1 watt

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

Output polarity (Standard): Negative
Option 003: Positive

RF connector: APC-3.5 Male (SMA compatible)

Output connector: BNC (Female)

Environmental capabilities:

Operating temperature:³ -65° C to +100° C

Temperature cycling: MIL-STD-883. Method 1010.1:
(-65° C to +100° C)

Notes:

1. Measured at 25° C and -20 dBm unless otherwise specified.

2. Below 1 GHz RF may leak through the video connector. If objectionable, this may be eliminated with a low pass filter.

3. Tested only to 50,000 ft (15,240 m), capable of much higher performance.



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Printed in USA August 1, 2001
5954-8878**



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