Keysight Technologies, Inc. Planar-Doped Barrier (PDB) detectors, 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.



Superior RF performance

- Exceptional flatness
- Broadband from 0.01 to 50 GHz
- Extremely temperature stable
- Environmentally rugged



Keysight | RF & Microwave Planar Doped Barrier Diode Detectors - Product Fact Sheet

Product specifications

Ordering examples

| Model | Frequency (GHz) | Frequency response | Maximum SWR | Low level sensitivity (mV/µW) | Max operat- ing input power | Typical short term maximum input power (< 1 minute) | Video im- pedance | RF bypass capaci- tance (nom) | Input connector | Output connector | Model | Option type | Option description |
|-------|--------------------|-----------------------|-----------------------|-------------------------------------|--------------------------------------|---|----------------------|--|--------------------|---------------------|-------|----------------|----------------------------|
| | | | | | | | | | | | 8471D | 102 | Square law load |
| | | | | | | | | | | | | 103 | Positive polarity |
| 8471D | 0.01 to 2 | ± 0.2 to 1 GHz | 1.23 to 1 GHz | > 0.5 | 100 mW | 0.7 W | 1.5 kΩ | 6800 pF | BNC (m) | BNC (f) | 8471E | 004 | 4 GHz operation |
| | | ± 0.4 to 2 GHz | 1.46 to 2 GHz | | | | | | | | | 103 | Positive polarity |
| 8471E | 0.01 to 12 | ± 0.23 to 4 GHz | 1.2 to 4 GHz | > 0.4 | 200 mW | 0.75 W | 1.5 kΩ | 30 pF | SMA (m) | SMC (m) | 8473D | 003 | Positive output |
| | | ± 0.6 to 8 GHz | 1.7 to 8 GHz | | | | | | | | 8474B | 002 | 0.01 to 2 GHz octave only |
| | | ± 0.85 to 12 GHz | 2.4 to 12 GHz | | | | | | | | | 004 | 2 to 4 GHz octave only |
| 8473D | 0.01 to 33 | ± 0.25 to 14 GHz | 1.2 to 14 GHz | > 0.4 | 200 mW | 1 W | 1.5 kΩ | 30 pF | 3.5 mm (m) | BNC (f) | | 008 | 4 to 8 GHz octave only |
| | | ± 0.4 to 26.5 GHz | 1.4 to 26.5 GHz | | | | | | | | | 102 | Square law load |
| | | ± 1.25 to 33 GHz | 2.0 to 33 GHz | | | | | | | | | 103 | Positive polarity |
| | | ± 2.0 dB to 40 GHz | 3.0 typical to 40 GHz | | | | | | | | | 008 | 4 to 8 GHz octave only |
| 8474B | 0.01 to 18 | ± 0.35 to 18 GHz | 1.3 to 18 GHz | > 0.4 | 200 mW | 0.75 W | 1.5 kΩ | 27 pF | Type-N (m) | BNC (f) | 8474C | 012 | 8 to 12.4 GHz octave only |
| 8474C | 0.01 to 33 | ± 0.4 to 26.5 GHz | 1.4 to 26.5 GHz | > 0.4 > 0.34 to 50 GHz | 200 mW | 0.75 W | 1.5 kΩ | 27 pF | 3.5 mm (m) | SMC (m) | 04746 | 033 | 26.5 to 33 GHz octave only |
| | | ± 0.7 to 33 GHz | 2.2 to 33 GHz | | | | | | | | | 103 | Positive polarity |
| 8474E | 0.01 to 50 | ± 0.3 to 26.5 GHz | 1.2 to 26.5 GHz | > 0.4 to 40 GHz | 200 mW | 0.75 W | 1.5 kΩ | 27 pF | 2.4 mm (m) | SMC (m) | | | |
| | | ± 0.6 to 40 GHz | 1.6 to 40 GHz | | | | | | | | | | |
| | | ± 1.0 to 50 GHz | 2.8 to 50 GHz | | | | | | | | | | |

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