



APD-100

Specifically designed for use with high frequency optical signals

PHOTO DETECTORS

APD-100

Hinds' detection systems are specifically designed for use with high frequency optical signals including those generated in Photoelastic Modulator (PEM) applications.

HINDS' DETECTOR FEATURES INCLUDE:

- ♦ Frequency response. DC to several times the PEM operating frequency.
- ♦ Dark-current and/or background DC null.
- ♦ Preamplification for current to voltage conversion and buffering for impedance matching to signal cables.
- ♦ Separate lowpass or DC signals and wide-band AC signals derived from the detector output.

APD-100 DETECTION CHARACTERISTICS

Model	001
Type	Si-APD
Spectral Range	200-1000 nm
Peak Sensitivity Wavelength, λ	620 nm
Photodiode Diameter	5 mm
Effective Active Area	19.6 mm ²
Frequency Bandwidth (3dB)	DC to 450 kHz
Maximum Light Input Power for Linear Response, (632.8nm laser)	
Minimum Gain	250 μ W
Minimum Light Input Power for Linear Response, (632.8nm laser)	
Maximum Gain	90 nW
Detector DC Output (into a 5.6k load @ maximum light input)	
Minimum Gain	Maximum Gain
	1.3 V _{DC} 8.5 V _{DC}

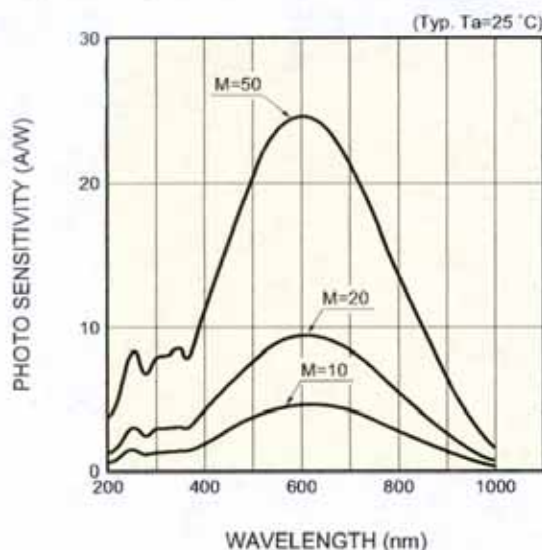
APD DETECTOR MODULE

Features

- ♦ Power, bipolar, \pm 12 volts
- ♦ Operating Temperature Range, -10° to 50° C
- ♦ High sensitivity, large active area (19.6 mm²) Si APD
- ♦ Detects optical signals from fixed DC light to 450 kHz
- ♦ Easy access potentiometer allows user gain adjustment for varying light intensity and to zero offset voltage
- ♦ Choice of side or back mounting holes for mounting
- ♦ Compact, self-contained, and lightweight
- ♦ Power supply and post mount included

These detectors are supplied in rectangular housings 4" x 3" x 1.4", with 2 1/4-20 tapped holes for post mounting.

■ Spectral response



ADP-100 Spectral Response