

Low noise and high bandwidth InGaAsPIN Balance detector

RZPD-200M-AC

The RZPD-200M-AC is a low-noise, high-bandwidth InGaAsPIN balancing detector consisting of two balanced photodiodes, ultra-low noise high-speed amplification circuit, and noise floor power supply. The two photodiodes are matched to achieve an excellent common-mode rejection ratio (CMRR) for better noise reduction. It is mainly used in laser wind measurement, laser vibration measurement, optical fiber sensing and other ultra-low and weak light coherent detection.

■ Features

- High transimpedance gain : 30kV/A
- High bandwidth : AC-200Mhz
- Response scope: 800~1700nm
- Low output noise and CMRR

■ Application

- Laser wind measurement
- Laser vibrometry
- Fiber optic sensing
- Ultra-low weak optical coherence detection

■ Maximum absolute rating

parameter	Unit	Symbol	Value
Operating temperature	°C	T _c	-40 ~ +85
Storage temperature	°C	T _{STG}	-55 ~ +100
Saturation input optical power	uW	P _{in}	150
Module operating voltage	V	V _{cc}	5
Module power consumption	mW	P _w	800

■ Optoelectronic performance(T=25°C, 5V Power supply , Ri=50)

Feature parameters	symbol	Value			Unit
		Min	Typ	Max	
Spectral response range		800~1700			nm
-3dBbandwidth	BW	AC-200			Mhz
Detector responsiveness	R _v		0.95		A/W
Transimpedance gain	G	30			KV/A
Saturation input optical power	P _{in}		150		uW
Equivalent noise	NEP		4		pW/ Hz
Common-mode Rejection Ratio	CMRR		30		dB
Output impedance	R _o		50		
Supply voltage	V _{cc}		5		V
Supply current	I _{cc}		140		mA
Optical input		FC/APC			
Signal output		SMA			

■ Dimensions

