



PDI-40P

InGaAs PHOTODIODE MODULES

These modules are detector modules containing highly reliable InGaAs pin for long wavelength band (800~1650nm) and single-mode fiber pigtails. These modules are used as detector for high-speed long haul optical communication systems.

FEATURES: PDI-40P-RM - optical matching modules
PDI-40P-R50 - low back reflection modules

Absolute maximum ratings

Reverse voltage, V_R	40V
Reverse current, V_R	10mA
Operating case temperature, T_c :	-40 ÷ +80°C
Storage temperature, T_{stg}	-40 ÷ +100°C

Electrical / optical characteristics (SM, T=25°C)

Parameter		Min.	Typ.	Max.	Unit	Test conditions
Responsivity	S_λ	0.9	1.05		A/W	$\lambda = 1550\text{nm}$, $V_R = 5\text{V}$
Back reflection*	R_L		-55	-50	dB	$\lambda = 1550\text{nm}$
Dark current	I_d		0.005	0.1	nA	$V_R = 5\text{V}$
Capacitance	C_t		0.6	0.8	pF	$V_R = 5\text{V}$, $F = 1\text{MHz}$
Cutoff frequency	f_c		2.5		GHz	$V_R = 5\text{V}$, $\lambda = 1550\text{nm}$, $R_L = 50\Omega$, -3dB
* for PDI -40P-R50						

Ordering information

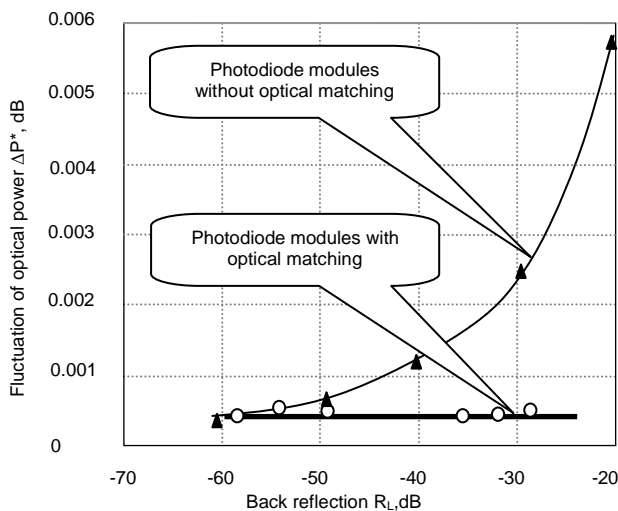
PDI-40P-X-X-SM-X

Connector type: **FC/UPC**, **FC/APC**, **N** – without connector

Case type: **W**, **H**

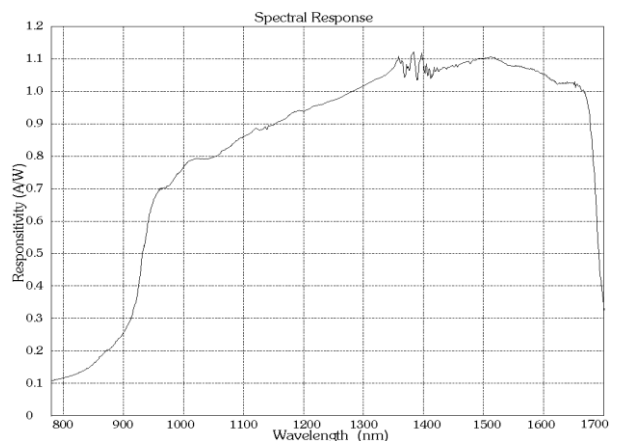
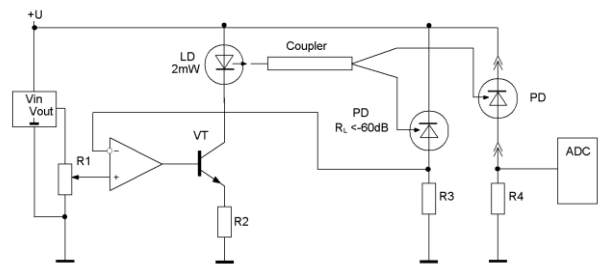
Back reflection: **R50** – -50dB, **RM** – optical matching

Stability of optical power of optical communication system at the use of photodiode modules with a different back reflection

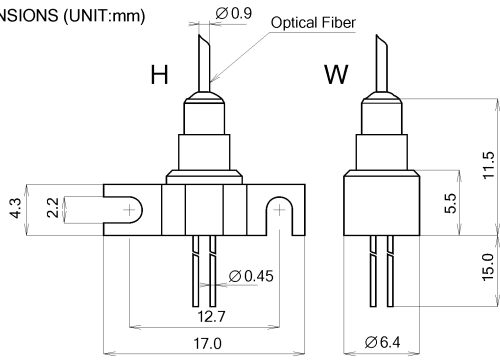


* - $\Delta P = 10 \lg[(2s+P)/P]$, s- standard deviation of the single measuring for a middle temporal period, P- average optical power

Measuring system



PACKAGE DIMENSIONS (UNIT:mm)



PIN Assignment (Bottom View)

