



# PDI-1000R-10, SPDI-1000R-25, SPDI-1000R-25-L

## InGaAs PHOTODIODE MODULES FOR MEASURING EQUIPMENT WITH OPTICAL INPUT

### Application

Photodiode module PDI-1000R-10	Measurement optical power to 10dBm
Integrating sphere SPDI-1000R-25	Measurement optical power to 25dBm
Integrating sphere SPDI-1000R-25-L	Simultaneous measurement wavelength and optical power to 25dBm

### Absolute maximum ratings

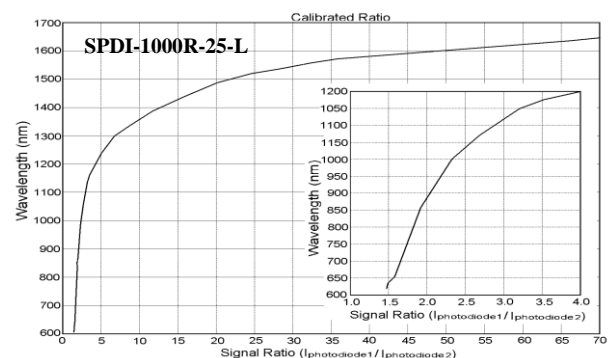
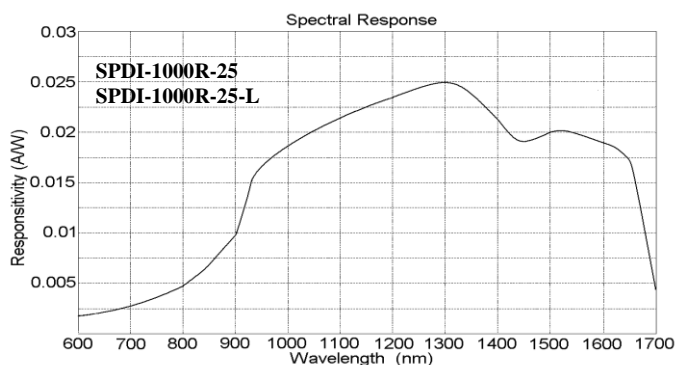
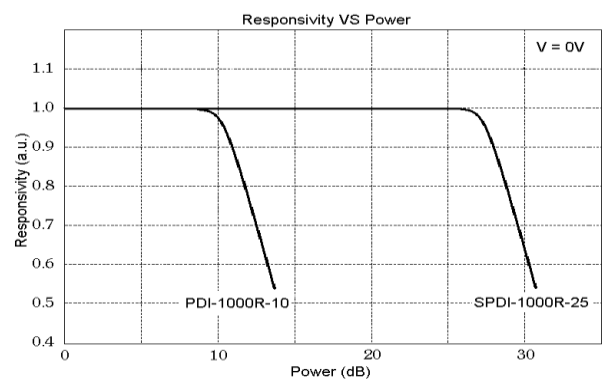
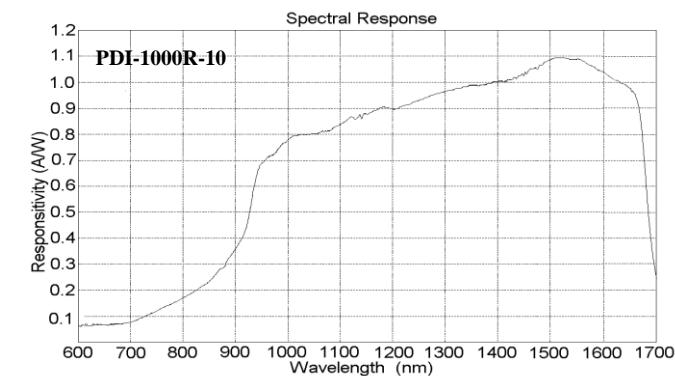
Reverse voltage, $V_R$	40V
Reverse current, $I_R$	40mA
Operating case temperature, $T_c$	-40 ÷ +80°C
Storage temperature, $T_{stg}$	-40 ÷ +100°C

- Wavelength band: 630 – 1650nm

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

Parameter		Min.	Typ.	Max.	Unit	Test conditions
Diameter	d		1		mm	
Responsivity PDI-1000R-10 SPDI-1000R-25, SPDI-1000R-25-L	$S_\lambda$	0.95 0.015	1.0 0.02		A/W	$\lambda = 1550\text{nm}$ , $V=0\text{V}$
Back reflection	$R_L$		-60		dB	$\lambda = 1550\text{nm}$
Dark current	$I_d$		1	2	nA	$V_K = 5\text{V}$
Shunt resistance	$R_0$		60		$M\Omega$	$V_K = \pm 0.01\text{V}$
Capacitance	$C_t$		100	140	pF	$V=0\text{V}$ , $F=1\text{MHz}$
Maximum measurid optical power * PDI-1000R-10 SPDI-1000R-25, SPDI-1000R-25-L	$P_{max}$	+5 +22	+10 +25		dBm	$\lambda=1550\text{nm}$ , $V=0\text{V}$
Maximum measurid optical power * PDI-1000R-10 SPDI-1000R-25, SPDI-1000R-25-L	$P_{max}$		+13 +28		dBm	$\lambda = 1550\text{nm}$ , $V=5\text{V}$

\*  $10\log S_\lambda/S_{\lambda 0\text{dBm}} < 0.02$



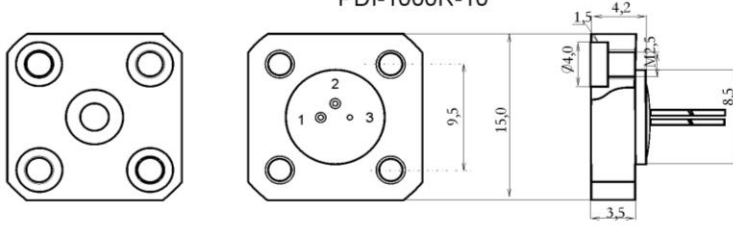
### Notes:

1. The ratio of photocurrents of the two photodiodes determines the value of the wavelength of radiation. Accuracy of the wavelength depends on the accuracy of measurement of photocurrents of the photodiodes and the width of the optical spectrum.
2. Type adapters: FC, ST, SC, U (1.25), U (2.5).

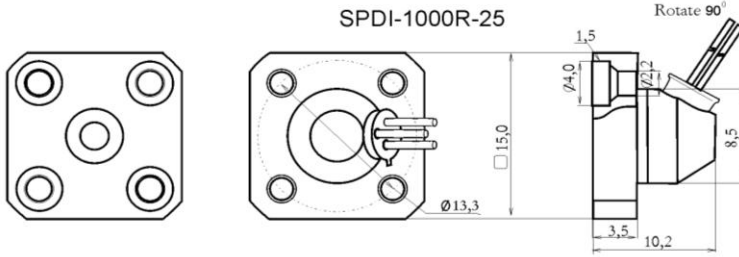
**ATTENTION: ELECTROSTATIC SENSITIVE DEVICES**

PACKAGE DIMENSIONS (UNIT:mm)

PDI-1000R-10



SPDI-1000R-25



SPDI-1000R-25-L

