

PD663PS/PD666PS

6-division photodiodes

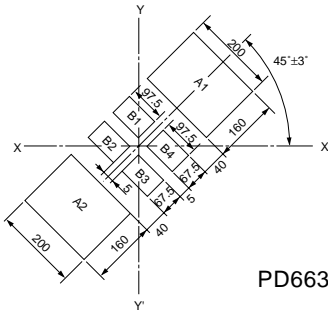
Features

1. For 3 beams(6-division photodiodes)
2. With non-reflective layer
3. Transparent transfer molded package

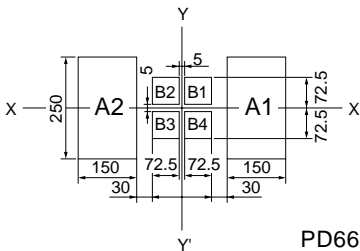
Applications

1. Optical pick-up for CD player

Enlarged Figure of Light Detecting Portion
(Unit: μm)



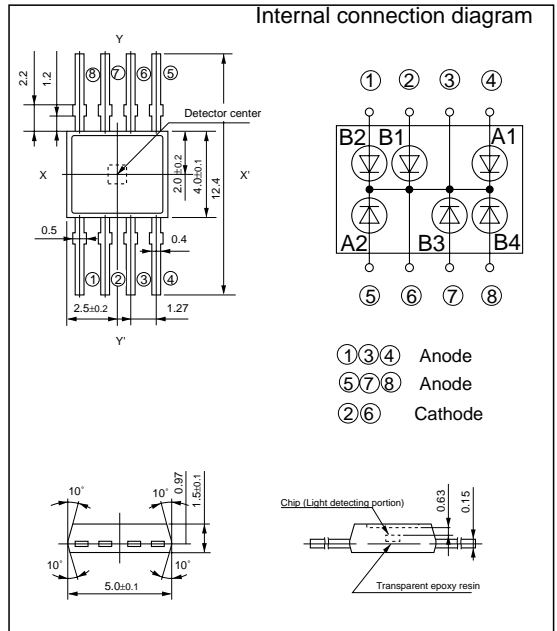
PD663PS



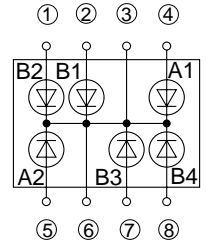
PD666PS

Outline Dimensions

(Unit: mm)



Internal connection diagram



- ①③④ Anode
- ⑤⑦⑧ Anode
- ②⑥ Cathode

Absolute Maximum Ratings

($T_a=25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Reverse voltage	V_R	30	V
Operating temperature	T_{opr}	-25 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +85	$^\circ\text{C}$
*1 Soldering temperature	T_{sol}	260	$^\circ\text{C}$

*1 For MAX. 3 seconds at the position of 1.0mm from the resin edge

■ Absolute Maximum Ratings

(Ta=25°C)

Parameter	Symbol	Conditions	*6	MIN.	TYP.	MAX.	Unit		
*2 *3 Short circuit current	PD663PS	I _{SC}	E _V =1000 lx *4	A	340	490	640	nA	
				B	80	120	160	nA	
				PD666PS	A	400	570	740	nA
					B	70	100	130	nA
Reverse voltage	V _R	I _R =10mA	A,B	30	-	-	V		
*5 Dark current	I _d	V _R =15V	A	-	-	300	pA		
			B	-	-	200	pA		
Terminal Capacitance	C _t	V _R =15V f=1MHz	A	-	3	-	pF		
			B	-	2	-	pF		
Peak sensitivity wavelength	λ _P		A,B	-	840	-	nm		
Cut-off frequency	f _C	V _R =15V, R _L =50Ω Output: -3dB at 500 kHz	A	-	35	-	MHz		
			B	-	35	-	MHz		
Sensitivity	S	λ=780nm	A,B	0.45	0.55	0.65	A/W		

*2 Values in each element. Elements other than subject elements shall be measured while the anode and the cathode are short-circuited to each other.

*3 Short-circuit currents at two segments on both ends and four segments on the center of the element shall be within ±10% of the average.

*4 E_v:Illuminance by CIE standard light source A(tungsten lamp)

*5 Values in each element.

*6 Like signs represent like elements in the light detector.

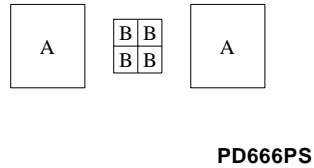
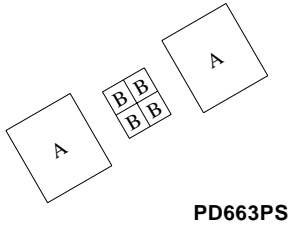


Fig.1 Power Dissipation vs. Ambient Temperature

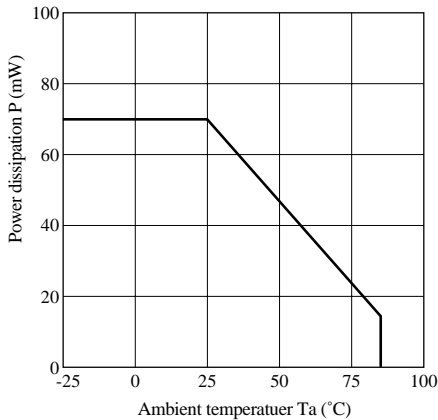


Fig.2 Spectral Sensitivity

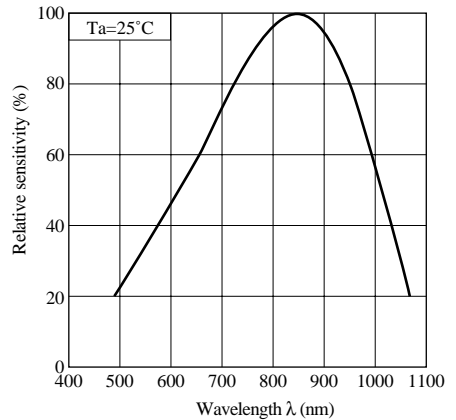


Fig. 3 Dark Current vs. Ambient Temperature

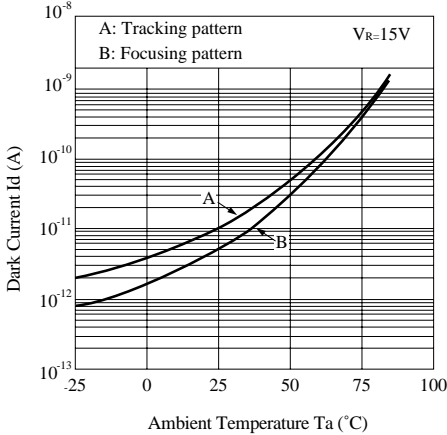


Fig.4 Dark Current vs. Reverse Voltage

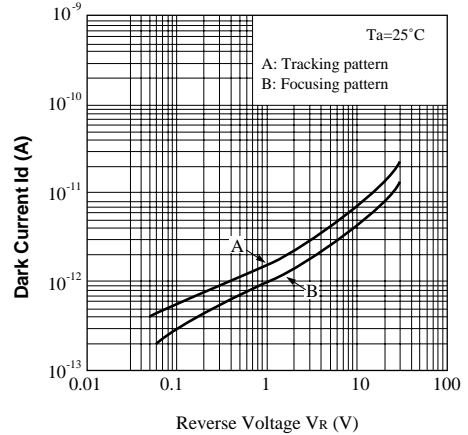


Fig.5 Terminal Capacitance vs. Reverse Voltage

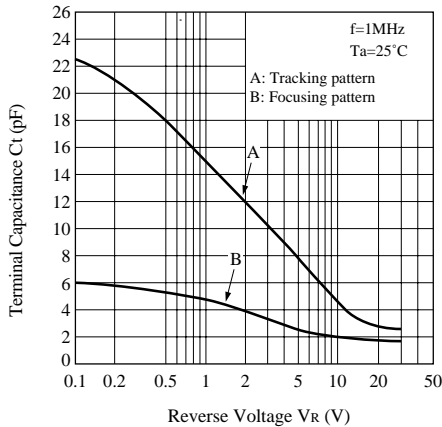


Fig.6 Relative Sensitivity vs. Ambient Temperature

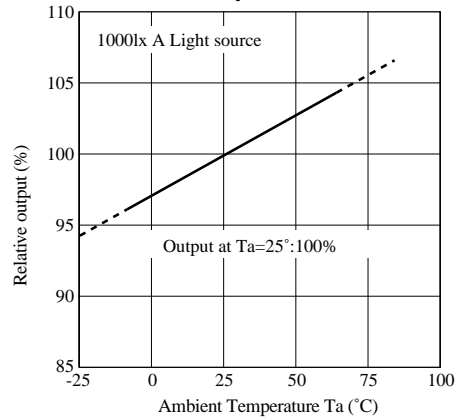


Fig.7 Response Time vs. Load Resistance

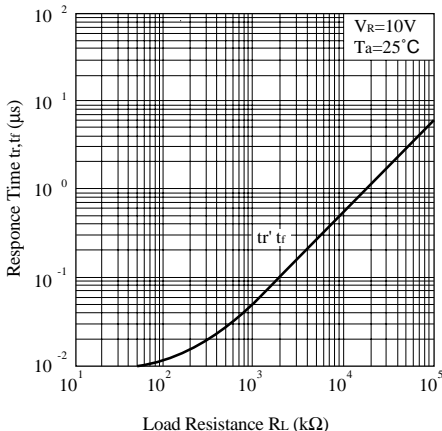


Fig.8 Frequency Response

