

SD - 612

The SD - 612 is position sensors for automatic focusing of camera.

FEATURES

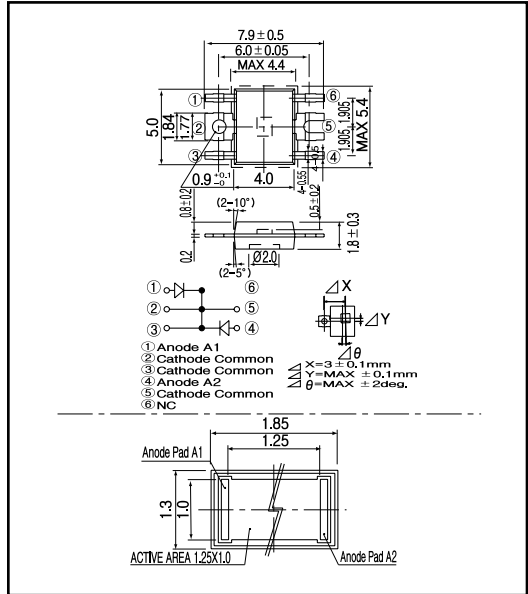
- Visible ray cut off flat package.
- Laser beam focusing/positioning is best performed.
- With alignment hole.

APPLICATIONS

- Automatic focusing of camera
- Position sensors

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	15	V
Power dissipation	P_o	30	mW
Operating temp.	T_{opr}	- 25 + 85	
Storage temp.	T_{stg}	- 30 + 100	
Soldering temp.*1	T_{sol}	260	

*1. For MAX.5 seconds at the position of 2mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Collector dark current	I_d	$V_R = 1V$			5	nA
Light current ^{*2}	I_L	$V_R = 1V, E_v = 1000lx^3$	6	9		μA
Spectral sensitivity				700 ~ 1100		nm
Peak wavelength	λ_p			920		nm
Switching speeds	t_r, t_f	$V_R = 1V, R_L = 1K$		2		$\mu sec.$
Capacitance	C_t	$V_R = 1V, f = 1MHz$		10		pF
Resistance ^{*4}	R_s	$V_R = 1V, V_a = 0.5V$	100	150	200	K
Signal slope ^{*5}		$V_R = 1V$		0.160		
Light current difference	I_1/I_2				± 2	%

*2. $I = I_1 + I_2$ (I_1 = Light current of A1, I_2 = Light current of A2)

*3. Color temp. = 2856K standard Tungsten lamp

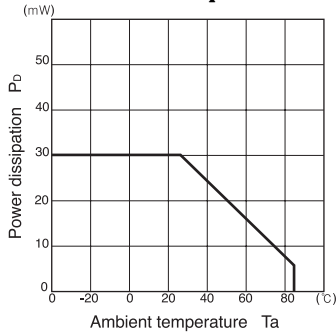
*4. V_a = Voltage of Anode A1, A2

*5. $= 1/(I_1 - I_2)/(I_1 + I_2) \times 100$

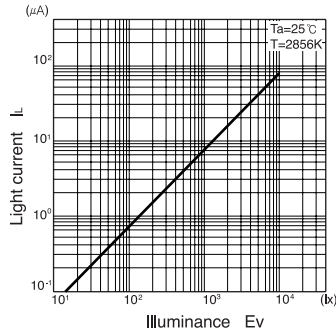
Position Sensitive Diode

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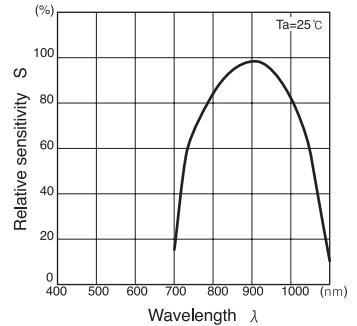
Power dissipation Vs. Ambient temperature



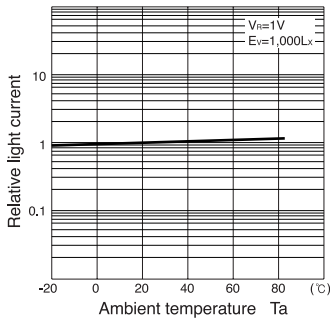
Light current Vs. Illuminance



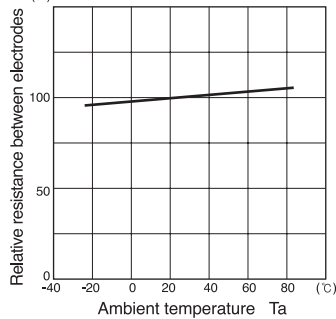
Relative sensitivity Vs. Wavelength



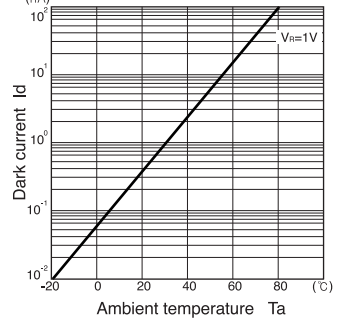
Relative light current Vs. Ambient temperature



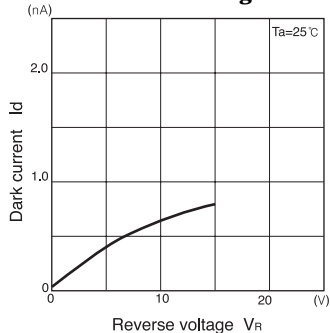
Relative resistance between electrodes Vs. Ambient temperature



Dark current Vs. Ambient temperature



Dark current Vs. Reverse voltage



Capacitance between terminals Vs. Reverse voltage

