

SD - 402

The SD - 402 is position sensors for automatic focusing of camera. It has 22 millimeter area.

FEATURES

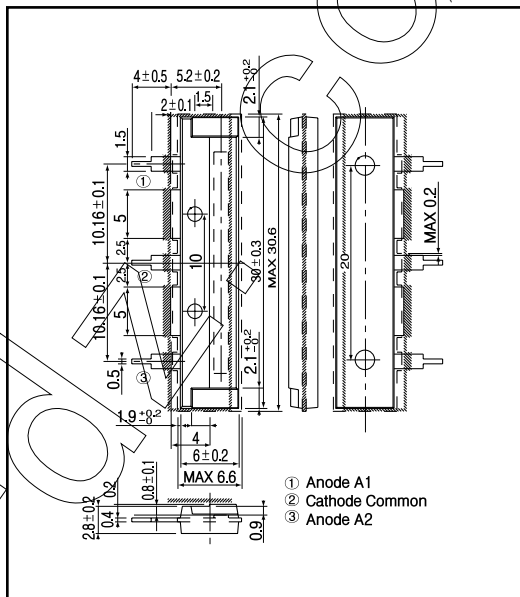
- Laser beam focusing/positioning is best performed
- High performance

APPLICATIONS

- Optical disk

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(T_θ=25)

Item	Symbol	Rating	Unit
Reverse voltage	V _R	15	V
Power dissipation	P _D	30	mW
Operating temp.	T _{opr.}	- 20 - +85	
Storage temp.	T _{stg.}	- 25 - +90	

ELECTRO-OPTICAL CHARACTERISTICS

(T_a=25)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Reverse voltage	V _R	I _R =10 μA	15			V
Dark current	I _d	V _R =1V			10	nA
Light current	I _L ^{*1}	V _R =1V, E=1000lx ⁵	100	120		μA
Spectral sensitivity				700-1,100		nm
Peak wavelength	λ _p			940		nm
Capacitance	C _t	V _R =1V, f=1MHz		30		pF
Resistance	R _s ^{*2}	V _R =1V, V _a =0.5V	140	200	260	K
Signal slope	S _L ^{*3}	V _R =1V		0.036		-
Light current difference	I _L /I _L ^{*4}				± 2	%

*1. I_L=I₁+I₂ (I₁=Light current of A1, I₂=Light current of A2)

*2. V_a=Voltage of Anode A1, A2

*3. S_L = I_L / (I_{L1} + I_{L2})

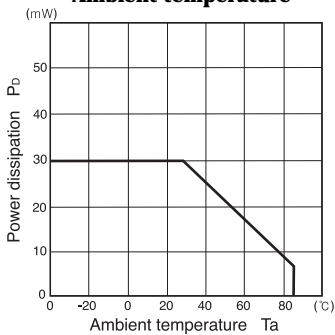
*4. I_L = I_{L1} + I_{L2}

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

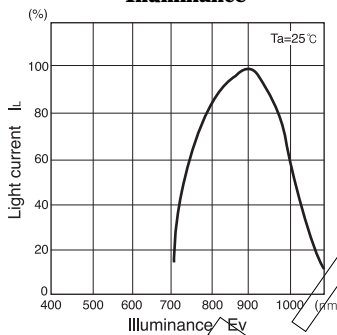
Position Sensitive Diode

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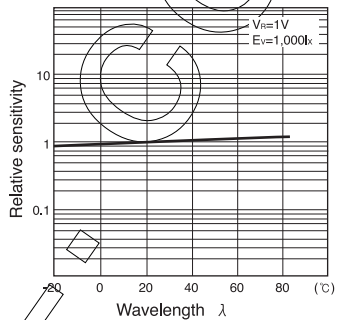
Power dissipation Vs. Ambient temperature



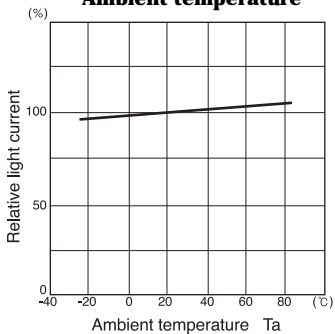
Light current Vs. Illuminance



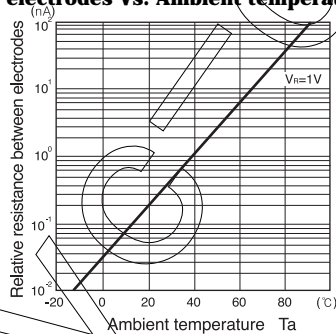
Relative sensitivity Vs. Wavelength



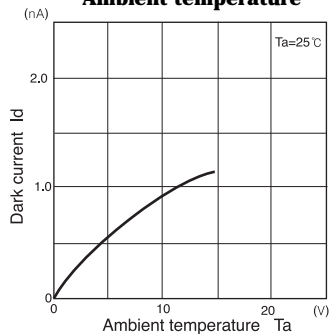
Relative light current Vs. Ambient temperature



Relative resistance between electrodes Vs. Ambient temperature



Dark current Vs. Ambient temperature



Relative light current Vs. Position

