

# HP - 2ML

The HP - 2ML, a high - output, high - speed silicon photodiode mounted in TO - 18 type header with clear epoxy encapsulation, permits wide angular response.

## FEATURES

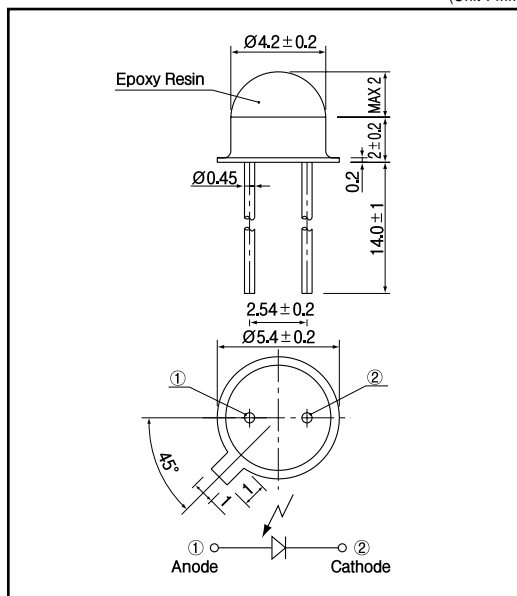
- High - output power
- High - speed response
- Wide angular response
- Relatively low - cost against metal can package

## APPLICATIONS

- Optical detectors
- Optical switches

## DIMENSIONS

(Unit : mm)



## MAXIMUM RATINGS

(Ta=25 )

Item	Symbol	Rating	Unit
Reverse voltage	$V_R$	5	V
Operating temp.	Topr.	- 20 ~ +80	
Storage temp.	Tstg.	- 20 ~ +80	
Soldering temp. *1	Tsol.	260	

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

## ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25 )

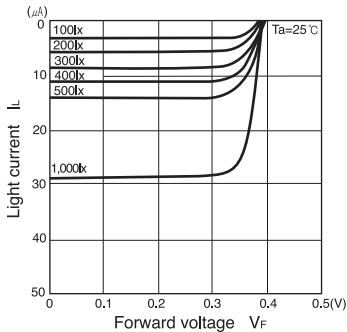
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Open circuit voltage	$V_{oc}$	$E_v = 1,000 \text{ lx}^{-2}$		0.38		V
Short circuit current	$I_{sc}$			28		$\mu\text{A}$
Dark current	$I_d$	$V_R = 5V$			1	$\mu\text{A}$
Curve factor	C.F.		0.55			-
Capacitance	$C_t$	$V = 0V, f = 1\text{MHz}$		60		pF
Temperature coefficient of $V_{oc}$	t			- 2.2		mV/
Temperature coefficient of $I_{sc}$	t			0.18		%/
Spectral sensitivity				450 ~ 1,050		nm
Peak wavelength	$\lambda_p$			900		nm
Half angle				$\pm 60$		deg.

\*2. Color temp. = 2856K standard Tungsten lamp

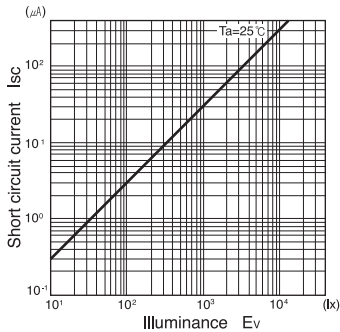
Photo diodes

**HP - 2ML**

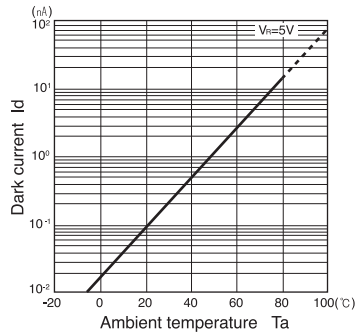
**Light current Vs. Forward voltage**



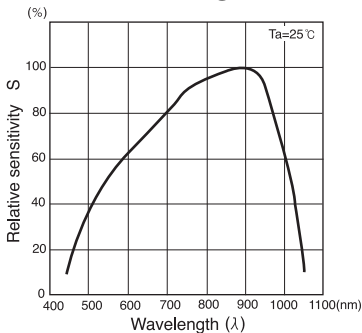
**Short circuit current Vs. Illuminance**



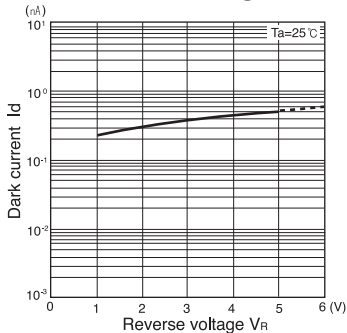
**Dark current Vs. Ambient temperature**



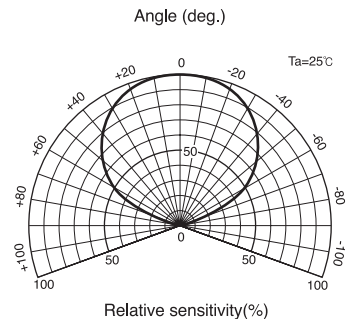
**Relative sensitivity Vs. Wavelength**



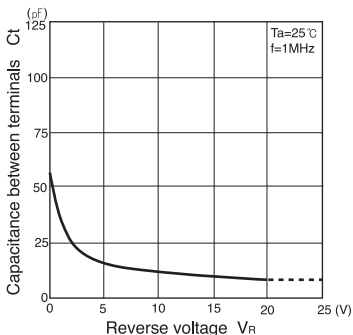
**Dark current Vs. Reverse voltage**



**Radiant Pattern**



**Capacitance between terminals Vs. Reverse voltage**



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