

## 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**

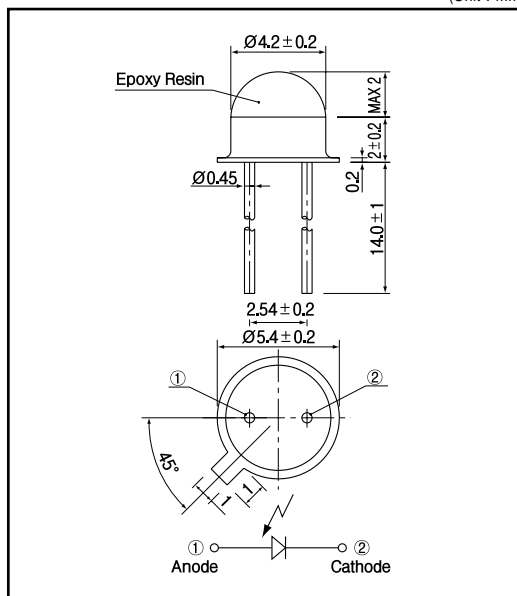
- High - output power
- High - speed response
- Wide angular response
- Relatively low - cost against metal can package

**APPLICATIONS**

- Optical detectors
- Optical switches

**DIMENSIONS**

(Unit : mm)

**MAXIMUM RATINGS**

(Ta=25 °C)

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 °C)

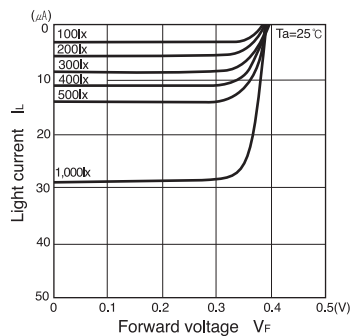
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Open circuit voltage	$V_{oc}$	$E_v = 1,000 \text{ lx}^{-2}$		0.38		V
Short circuit current	$I_{sc}$			28		$\mu\text{A}$
Dark current	$I_d$	$V_R = 5\text{V}$			1	$\mu\text{A}$
Curve factor	C.F.		0.55			-
Capacitance	$C_t$	$V = 0\text{V}, f = 1\text{MHz}$		60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

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

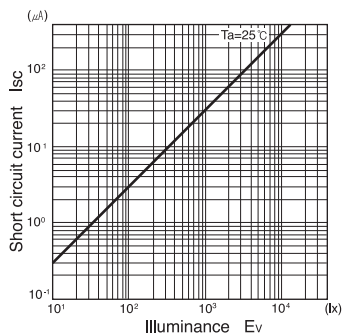
## Photo diodes

HP - 2ML

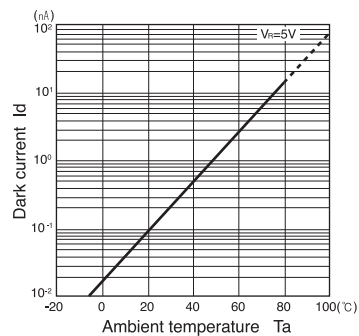
**Light current Vs. Forward voltage**



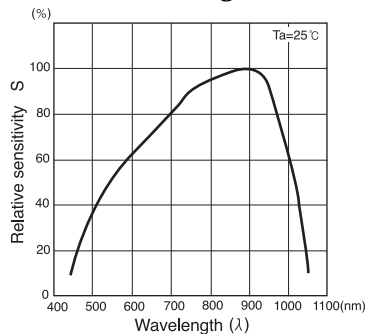
**Short circuit current Vs. Illuminance**



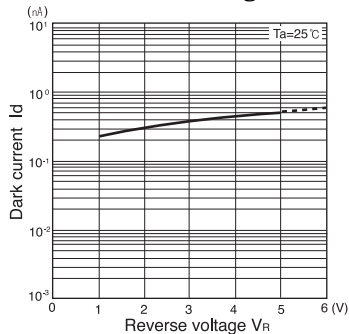
**Dark current Vs. Ambient temperature**



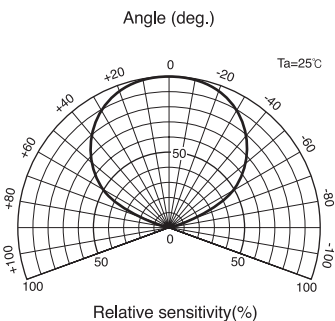
**Relative sensitivity Vs. Wavelength**



**Dark current Vs. Reverse voltage**



**Radiant Pattern**



**Capacitance between terminals Vs. Reverse voltage**

