

# HP - 304

The HP - 304 is a high - output, high - speed silicon photodiode mounted in a clear side - viewing package.

**FEATURES**

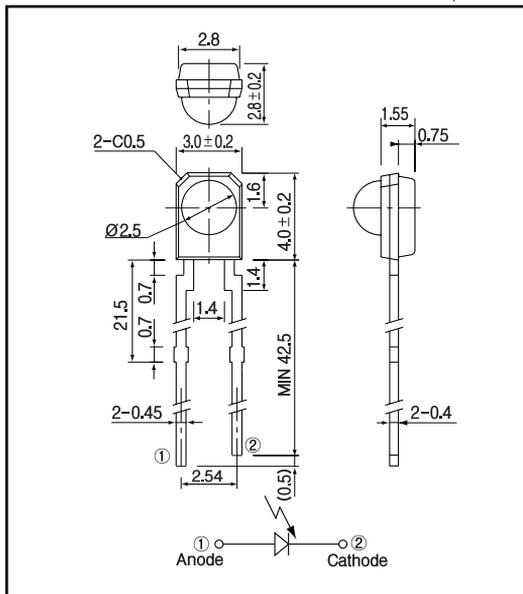
- Visible ray cut off mold type
- Long leads

**APPLICATIONS**

- Optical Switches

**DIMENSIONS**

(Unit : mm)



**MAXIMUM RATINGS**

(Ta=25 )

Item	Symbol	Rating	Unit
Reverse voltage	V <sub>r</sub>	20	V
Operating temp.	T <sub>opr.</sub>	- 20 +70	
Storage temp.	T <sub>stg.</sub>	- 30 +80	
Soldering temp. <sup>*1</sup>	T <sub>sol.</sub>	240	

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

**ELECTRO-OPTICAL CHARACTERISTICS**

(Ta=25 )

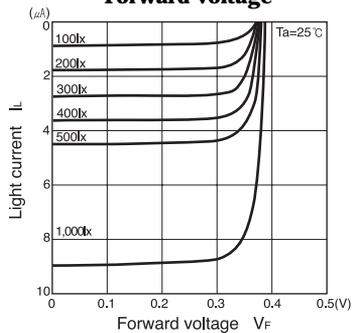
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Open circuit voltage	V <sub>oc</sub>	E <sub>v</sub> = 1,000lx <sup>-2</sup>		0.4		V
Short circuit current	I <sub>sc</sub>	E <sub>v</sub> = 1,000lx <sup>-2</sup>		9.0		µA
Curve factor	C.F.			—		—
Dark current	I <sub>d</sub>	V <sub>r</sub> = 5V			0.5	µA
Capacitance	C <sub>t</sub>	V = 0V, f = 1MHz		7		pF
Temperature coefficient of V <sub>oc</sub>	t			—		mV/
Temperature coefficient of I <sub>sc</sub>	t			—		%/
Spectral sensitivity				450 1050		nm
Peak wavelength	ρ			900		nm
Half angle				± 40		deg.

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

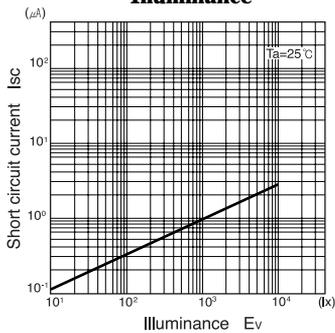
Photo diodes

HP - 304

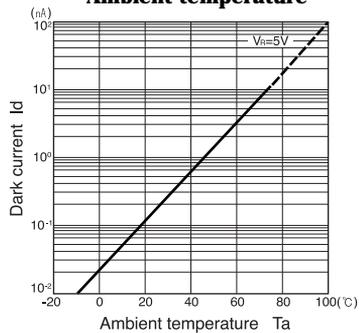
**Light current Vs. Forward voltage**



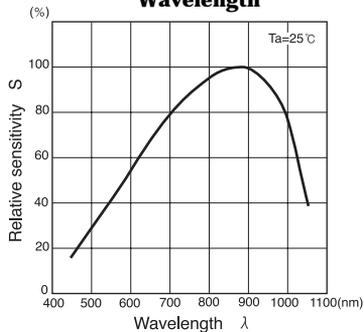
**Short circuit current Vs. Illuminance**



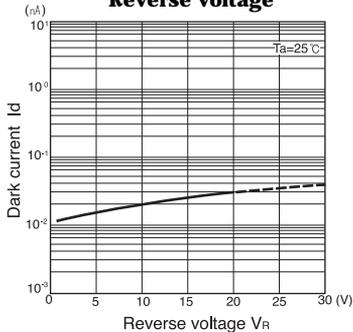
**Dark current Vs. Ambient temperature**



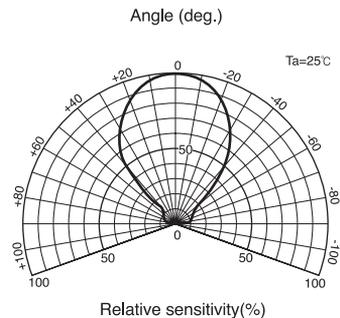
**Relative sensitivity Vs. Wavelength**



**Dark current Vs. Reverse voltage**



**Radiant Pattern**



**Capacitance between terminals Vs. Reverse voltage**

