

# HPI - 1KL5

The HPI - 1KL5, a silicon PIN photodiode mounted in durable, hermetically sealed TO - 18 metal can package, provides years of reliable performance even under demanding conditions such as use outdoors.

### FEATURES

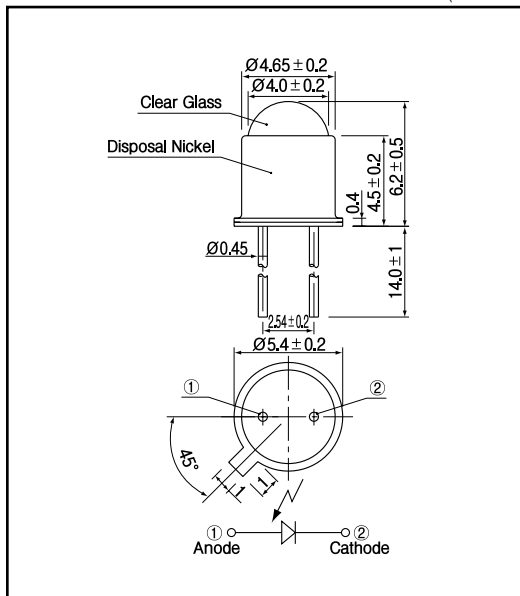
- TO - 18 can type with glass lens
- High speed response
- High reliability

### APPLICATIONS

- Optical transmissions
- Optical switches
- Precise optical equipment

### DIMENSIONS

(Unit : mm)



### MAXIMUM RATINGS

(Ta=25 )

Item	Symbol	Rating	Unit
Reverse voltage	$V_R$	40	V
Power dissipation	$P_o$	100	mW
Operating temp.	$T_{opr.}$	- 25 + 100	
Storage temp.	$T_{stg.}$	- 40 + 110	
Soldering temp.*1	$T_{sol.}$	260	

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

### ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25 )

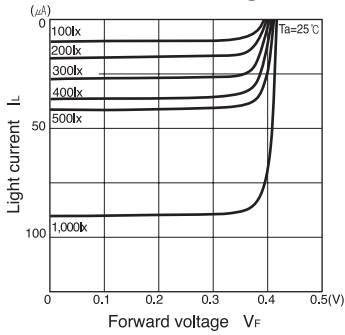
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Open circuit voltage	$V_{oc}$	$E_v = 1,000lx^2$		0.4		V
Short circuit current	$I_{sc}$	$E_v = 1,000lx^2$	65	85		$\mu A$
Curve factor	C.F.		0.55			—
Dark current	$I_d$	$V_R = 5V$			0.1	$\mu A$
Capacitance	$C_t$	$V = 0V, f = 1MHz$		10		pF
Temperature coefficient of $V_{oc}$	t			- 2.2		mV/
Temperature coefficient of $I_{sc}$	t			0.18		%/
Spectral sensitivity				450 1050		nm
Peak wavelength	$\rho$			920		nm
Half angle		$I_f = 20mA$		$\pm 6$		deg.

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

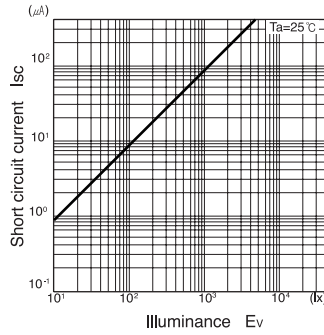
**PIN Photodiode**

**HPI - 1KL5**

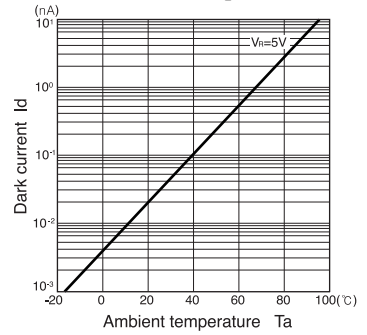
**Light current Vs. Forward voltage**



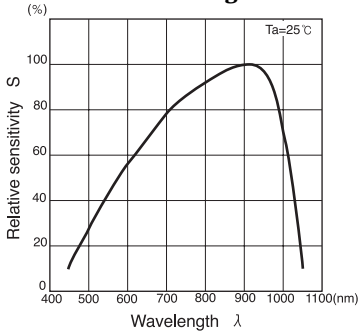
**Short circuit current I\_sc Vs. Illuminance E\_v**



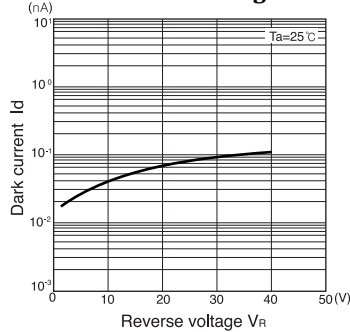
**Dark current I\_d Vs. Ambient temperature T\_a**



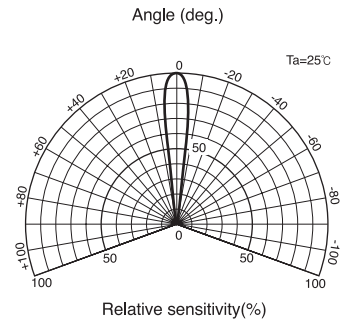
**Relative sensitivity S Vs. Wavelength λ**



**Dark current I\_d Vs. Reverse voltage V\_R**



**Radiant Pattern**



**Capacitance between terminals C\_t Vs. Reverse voltage V\_R**

