

# HPI - 1K1 · HPI - 1K3

The HPI - 1K1 and HPI - 1K3 are PIN photodiodes for fiber optic receivers, mounted in a durable, hermetically sealed TO - 18 metal can package, which offer high - speed response and high output. HPI - 1K1 cathode connected to metal case. Each HPI - 1K3 lead pin is isolated from metal case.

**FEATURES**

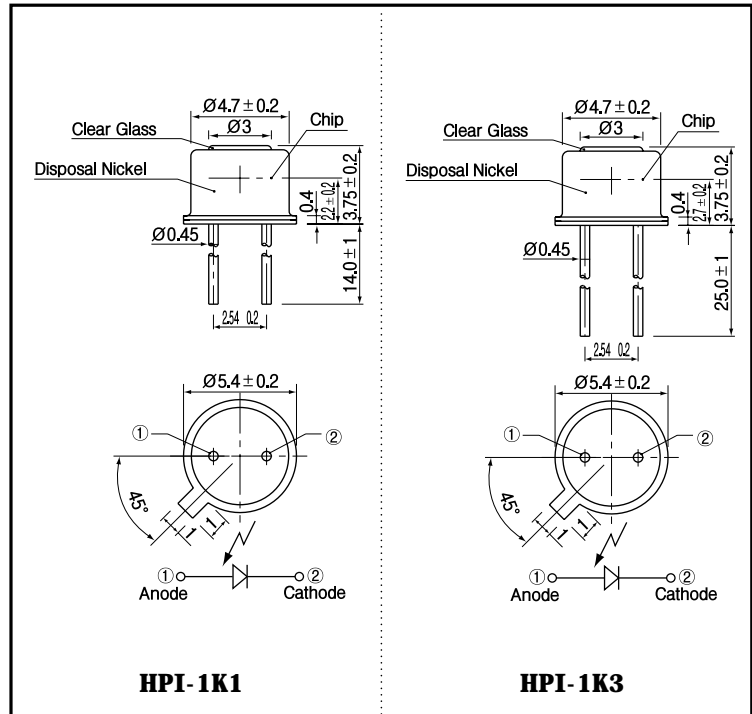
- High - output power
- High - speed response
- Durable
- High reliability in demanding environments
- Narrow angular response

**APPLICATIONS**

- Fiber optic communications
- Optical switches

**DIMENSIONS**

(Unit : mm)



**MAXIMUM RATINGS**

(Ta=25 )

Item	Symbol	Rating		Unit
		HPI - 1K1	HPI - 1K3	
Reverse voltage	V <sub>R</sub>	40	40	V
Power dissipation	P <sub>b</sub>	100	100	mW
Operating temp.	T <sub>opr.</sub>	- 30 ~ +100	- 25 ~ +100	
Storage temp.	T <sub>stg.</sub>	- 40 ~ +110	- 40 ~ +110	
Soldering temp. *1	T <sub>sol.</sub>	260	260	

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

(Ta=25 )

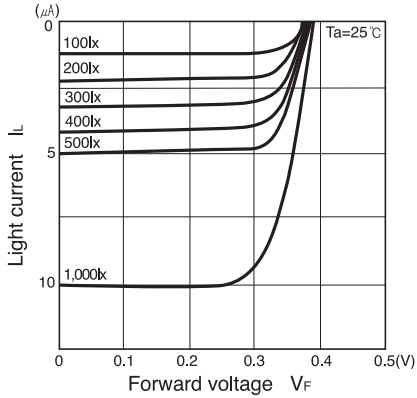
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Open circuit voltage	V <sub>oc</sub>	E <sub>v</sub> =1,000lx <sup>2</sup>		0.38		V
Short circuit current	I <sub>sc</sub>			10		μA
Sensitivity	S			0.4		A/W
Dark current	I <sub>d</sub>	V <sub>R</sub> =1V			10	nA
Curve factor	C.F.		0.55			-
Capacitance	C <sub>t</sub>	V=0V, f=1MHz		10		pF
Temperature coefficient of V <sub>oc</sub>	t			- 2.2		mV/
Temperature coefficient of I <sub>sc</sub>	t			0.18		%/
Spectral sensitivity				450~1,050		nm
Peak wavelength	p			920		nm
Half angle				± 50		deg.

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

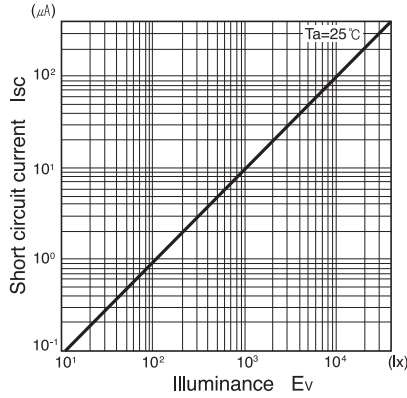
**PIN Photodiode**

**HPI - 1K1 · HPI - 1K3**

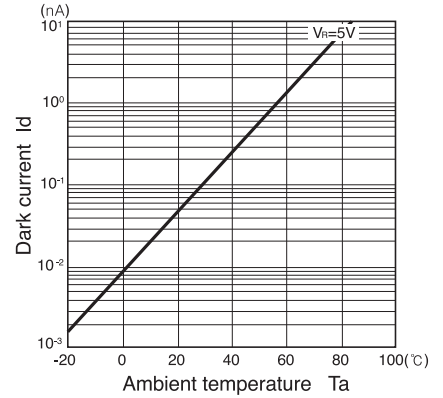
**Light current Vs. Forward voltage**



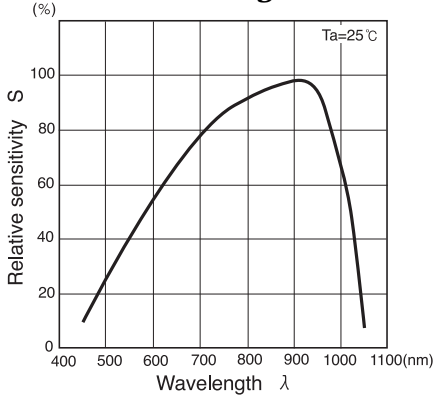
**Short circuit current Vs. Illuminance**



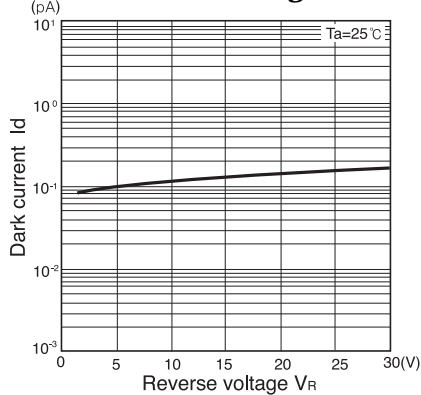
**Dark current Vs. Ambient temperature**



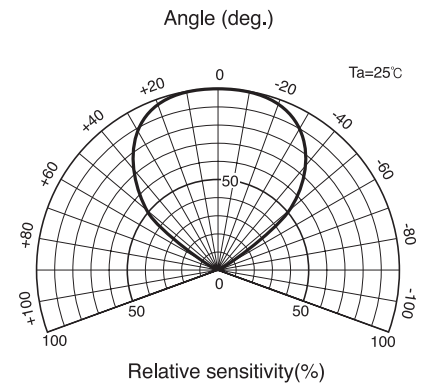
**Relative sensitivity Vs. Wavelength**



**Dark current Vs. Reverse voltage**



**Radiant Pattern**



**Capacitance between terminals Vs. Reverse voltage**

