

HPI - 2C · HPI - 2CR2

The HPI - 2C is a high - speed, high - output silicon PIN photodiode, mounted in a low profile ceramic package. The HPI - 2CR2 photodiode, with daylight filter, is available in the same package.

FEATURES

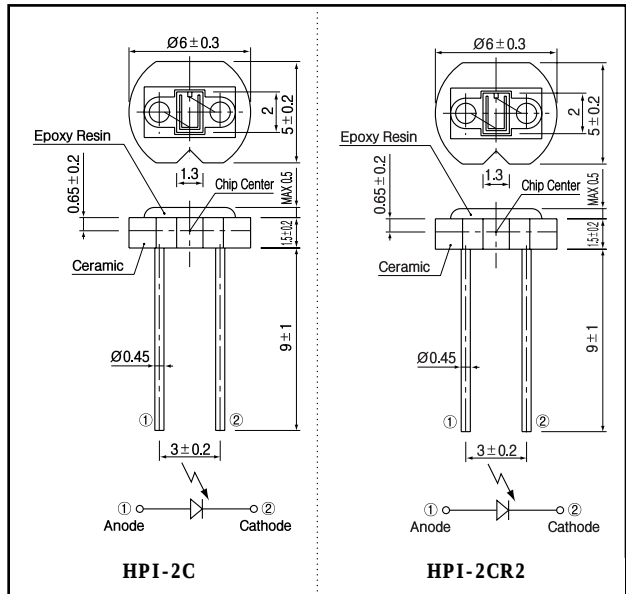
- High - output power
- High - speed response
- Low dark current
- Thin ceramic package ($t=1.5\text{mm}$)

APPLICATIONS

- Fiber optic communications
- Optical switches

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta = 25°C)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	20	V
Power dissipation	P_o	100	mW
Operating temp.	$T_{opr.}$	- 20 ~ + 70	°C
Storage temp.	$T_{stg.}$	- 40 ~ + 80	°C
Soldering temp. ^{*1}	$T_{sol.}$	260	°C

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

ELECTRO-OPTICAL CHARACTERISTICS

(Ta = 25°C)

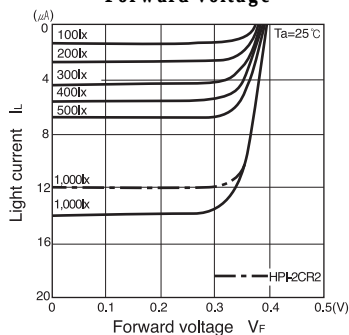
Item	Symbol	Conditions	HPI - 2C			HPI - 2CR2			Unit.
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Open circuit voltage	V_{oc}	$E_v = 1,000\text{lx}^2$		0.38			0.3		V
Short circuit current	I_{sc}			14			12		μA
Sensitivity	S	$V_R = 5\text{V}$		0.4			0.4		A/W
Dark current	I_d				0.1			0.1	μA
Curve factor	C.F.		0.55			0.55			-
Capacitance	C_t	$V = 0\text{V}, f = 1\text{MHz}$		20			20		pF
Temperature coefficient of V_{oc}	α_t			- 2.2			- 2.2		$\text{mV}/^\circ\text{C}$
Temperature coefficient of I_{sc}	β_t			0.18			0.18		$\%/^\circ\text{C}$
Spectral sensitivity	λ			450 ~ 1,050			700 ~ 1,050		nm
Peak wavelength	λ_p			920			940		nm
Half angle	$\Delta \theta$			± 60			± 60		deg.

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

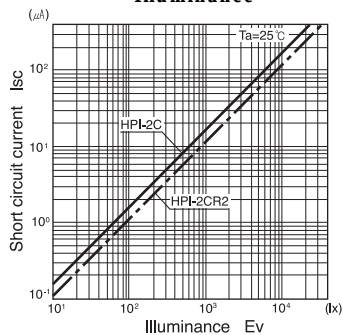
PIN Photodiode

HPI - 2C · HPI - 2CR2

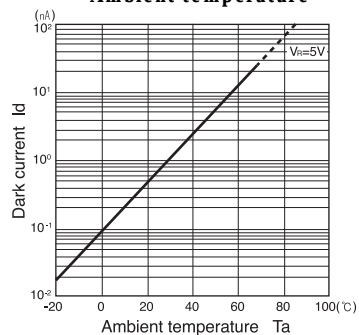
**Light current Vs.
Forward voltage**



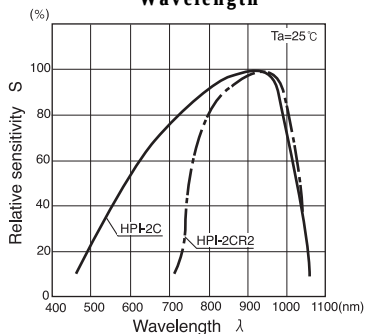
**Short circuit current Vs.
Illuminance**



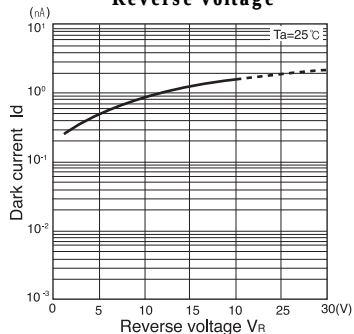
**Dark current Vs.
Ambient temperature**



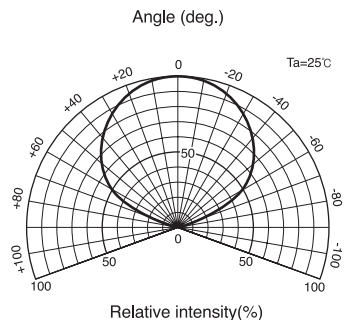
**Relative sensitivity Vs.
Wavelength**



**Dark current Vs.
Reverse voltage**



Radiant Pattern



**Capacitance between terminals Vs.
Reverse voltage**

