

HP - 2FR4

The HP - 2FR4 is a high - speed silicon photodiode mounted in a sidelooking plastic package with daylight filter (IR - 88). The lensed package permits high - output.

FEATURES

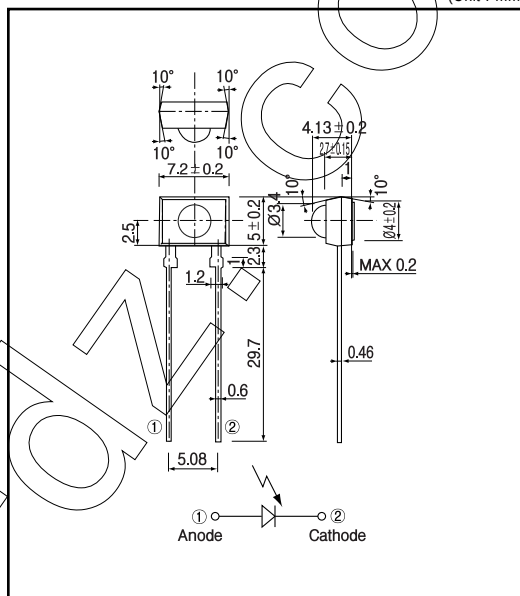
- High - output power for IRED
- High - speed response
- Lensed package
- Black plastic package for daylight filter
- Long leads (32mm)

APPLICATIONS

- Remote control sensors
- Optical switches

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta = 25 °C)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	35	V
Power dissipation	P_D	150	mW
Operating temp.	$T_{opr.}$	-30 ~ +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)

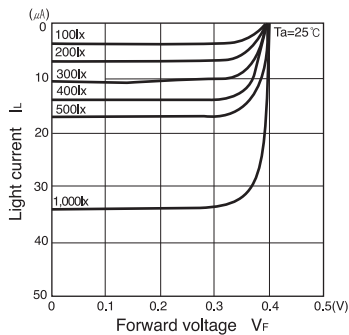
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Open circuit voltage	V_{oc}	$E_v = 1,000 \text{ lx}^{*2}$		0.38		V
Short circuit current	I_{sc}		20	34		μA
Dark current	I_d	$V_R = 10 \text{ V}$			10	nA
Curve factor	C.F.		0.55			-
Capacitance	C_t	$V = 0 \text{ V}, f = 1 \text{ MHz}$		73		pF
Temperature coefficient of V_{oc}	α_t			-2.2		mV/°C
Temperature coefficient of I_{sc}	β_t			0.18		%/°C
Spectral sensitivity	λ			880 ~ 1,050		nm
Peak wavelength	λ_p			940		nm
Half angle	$\Delta \theta$			±60		deg.

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

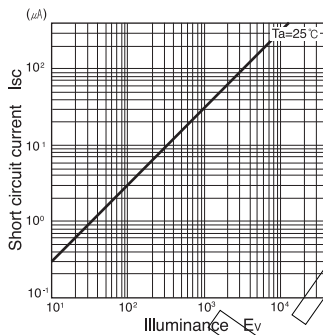
Photo diodes

HP - 2FR4

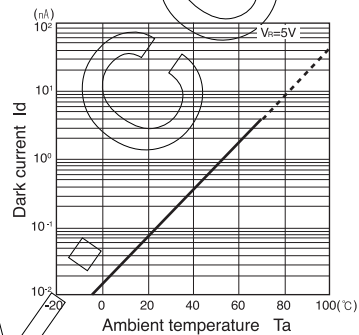
**Light current Vs.
Forward voltage**



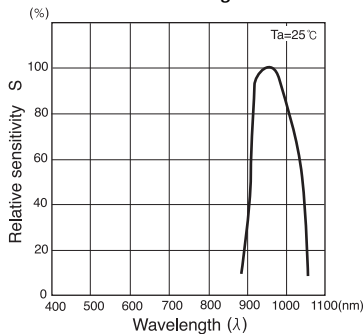
**Short circuit current Vs.
Illuminance**



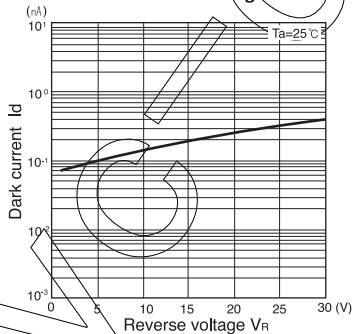
**Dark current Vs.
Ambient temperature**



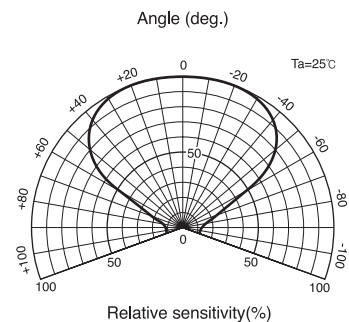
**Relative sensitivity Vs.
Wavelength**



**Dark current Vs.
Reverse voltage**



Radiant Pattern



**Capacitance between terminals Vs.
Reverse voltage**

