

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

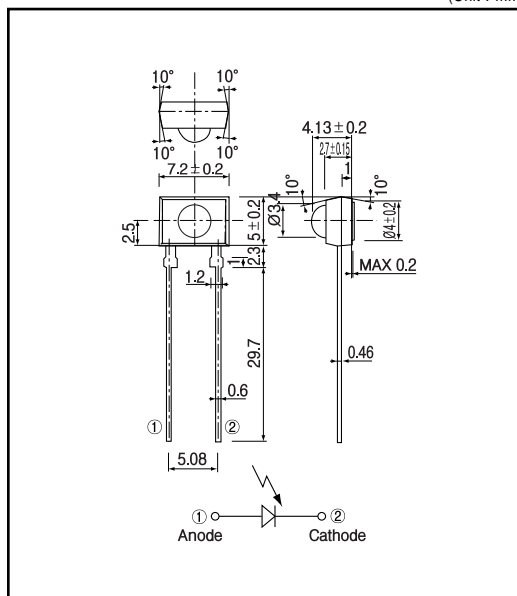
- High - output power for IRED
- High - speed response
- Lensed package
- Black plastic package for daylight filter
- Long leads (32mm)

APPLICATIONS

- Remote control sensors
- Optical switches

DIMENSIONS

(Unit : mm)

**MAXIMUM RATINGS**

(Ta=25)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	35	V
Power dissipation	P_D	150	mW
Operating temp.	$T_{opr.}$	- 30 ~ + 70	
Storage temp.	$T_{stg.}$	- 40 ~ + 80	
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)

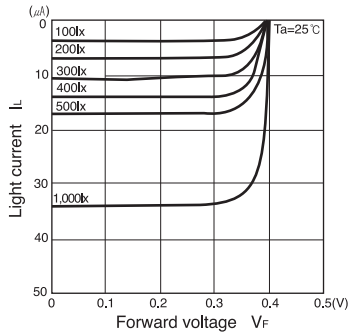
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Open circuit voltage	V_{oc}	$E_V = 1,000lx^{-2}$		0.38		V
Short circuit current	I_{sc}		20	34		μA
Dark current	I_d	$V_R = 10V$			10	nA
Curve factor	C.F.		0.55			-
Capacitance	C_t	$V = 0V, f = 1MHz$		73		pF
Temperature coefficient of V_{oc}	t			- 2.2		mV/
Temperature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

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

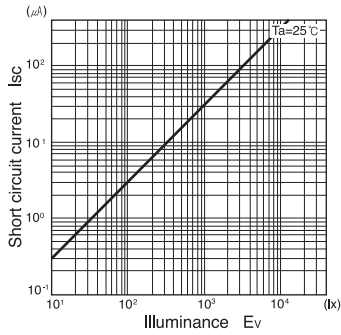
Photo diodes

HP - 2FR4

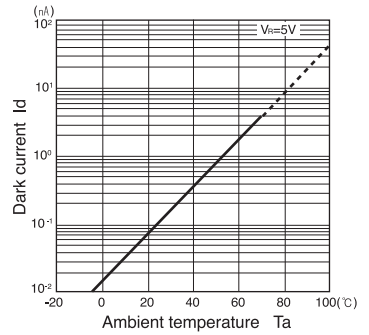
Light current Vs. Forward voltage



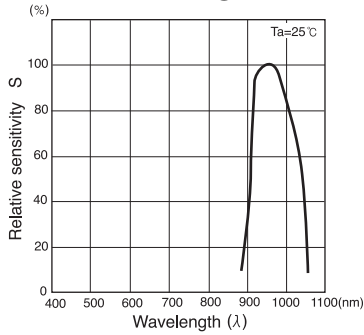
Short circuit current Vs. Illuminance



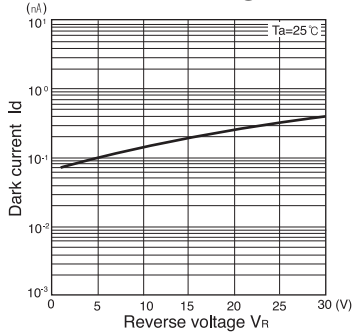
Dark current Vs. Ambient temperature



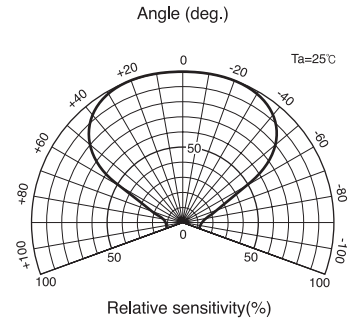
Relative sensitivity Vs. Wavelength



Dark current Vs. Reverse voltage



Radiant Pattern



Capacitance between terminals Vs. Reverse voltage

