HP - 3ML · HP - 3MLR2

The HP - 3ML is a high - output, high - speed photodiode mounted in a TO - 18 type header with clear epoxy encapsulation, The HP - 3MLR2 photodiode, with daylight filter, is available in the same package.

FEATURES

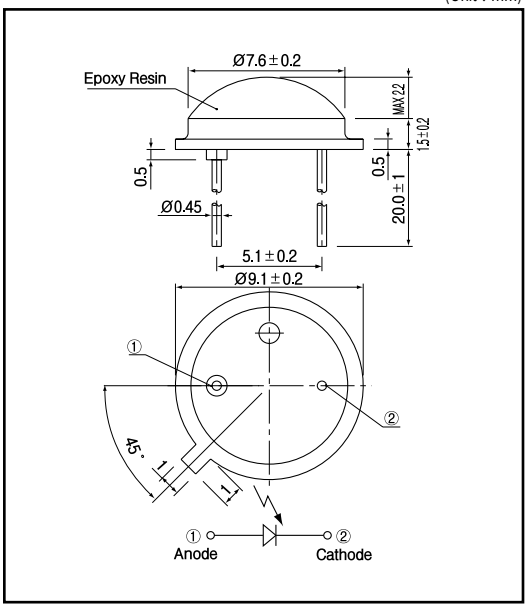
- High - output power
- High - speed response
- Wide angular response
- Relatively low - cost against metal can package

APPLICATIONS

- Optical detectors
- Optical switches

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25°C)

Item	Symbol	Rating	Unit
Reverse voltage	V_R	5	V
Operating temp.	Topr.	- 20 ~ + 80	°C
Storage temp.	Tstg.	- 30 ~ + 100	°C
Soldering temp. *1	Tsol.	260	°C

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

ELECTRO-OPTICAL CHARACTERISTICS

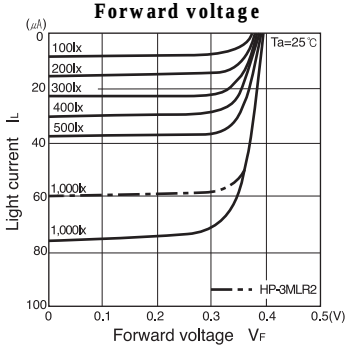
(Ta=25°C)

Item	Symbol	Conditions	HP - 3ML			HP - 3MLR2			Unit.
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Open circuit voltage	V_{OC}	E_V=1,000lx *2		0.38			0.30		V
Short circuit current	I_{SC}		54	75			60		μA
Dark current	Id	V_R=5V			1			10	μA
Curve factor	C.F.		0.55			0.55			-
Capacitance	Ct	V=0V, f=1MHz		180			180		pF
Temperature coefficient of V_{OC}	αt			- 2.2			- 2.2		mV/°C
Temperature coefficient of I_{SC}	βt			0.18			0.18		%/°C
Spectral sensitivity	λ		450~1,050			700~1,050			nm
Peak wavelength	λp			900			940		nm
Half angle	Δ θ			±60			±60		deg.

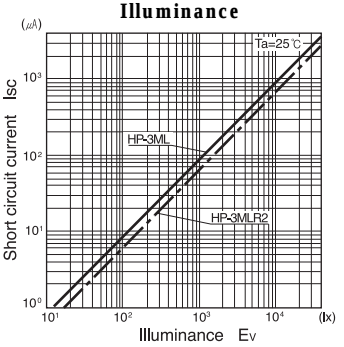
*2. Color temp.=2856K standard Tungsten lamp

HP-3ML・HP-3MLR2

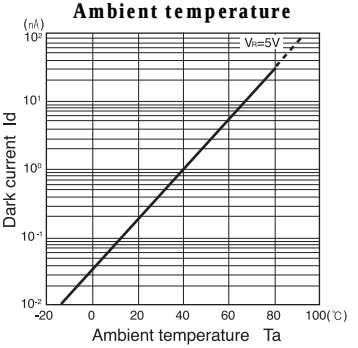
Light current Vs. Forward voltage



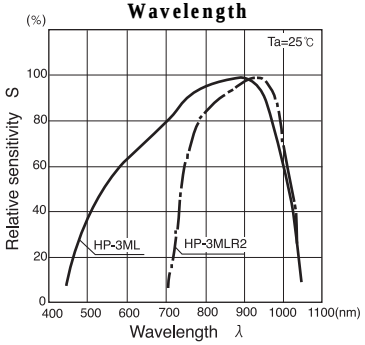
Short circuit current Vs. Illuminance



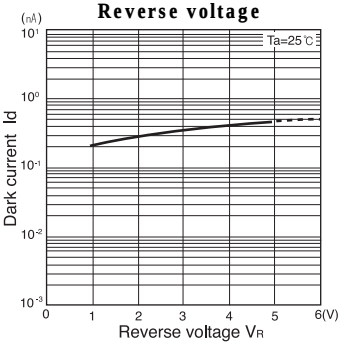
Dark current Vs. Ambient temperature



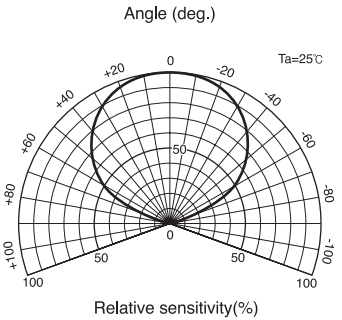
Relative sensitivity Vs. Wavelength



Dark current Vs. Reverse voltage



Radiant Pattern



Capacitance between terminals Vs. Reverse voltage

