

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

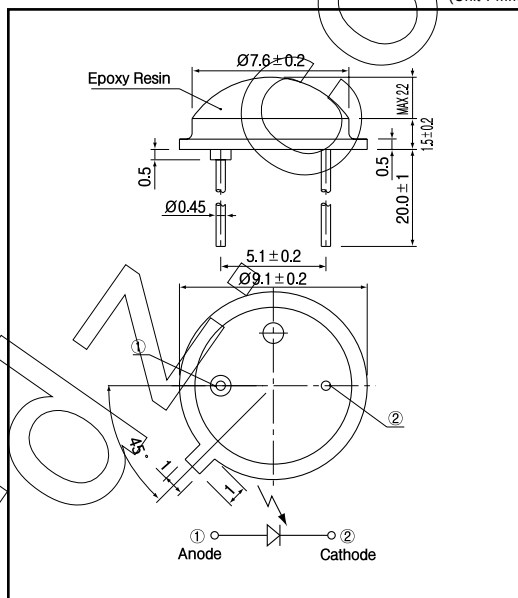
- High - output power
- High - speed response
- Wide angular response
- Relatively low - cost against metal can package

APPLICATIONS

- Optical detectors
- Optical switches

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25 °)

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

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

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25 °)

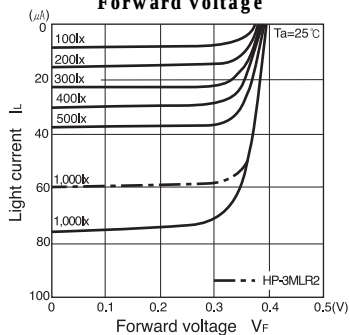
Item	Symbol	Conditions	HP - 3ML			HP - 3MLR2			Unit.
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Open circuit voltage	V_{OC}	$E_v = 1,000 \text{ lx}^{*2}$		0.38		0.30			V
Short circuit current	I_{SC}		54	75		60			μA
Dark current	I_d	$V_R = 5\text{V}$			1			10	μA
Curve factor	C.F.		0.55			0.55			-
Capacitance	Ct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

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

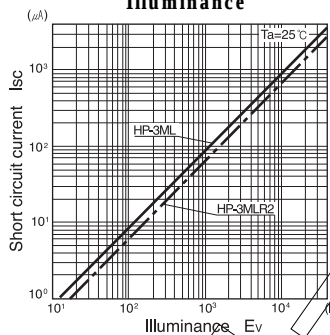
Photo diodes

HP - 3ML · HP - 3MLR2

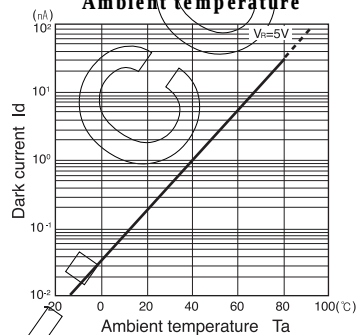
**Light current Vs.
Forward voltage**



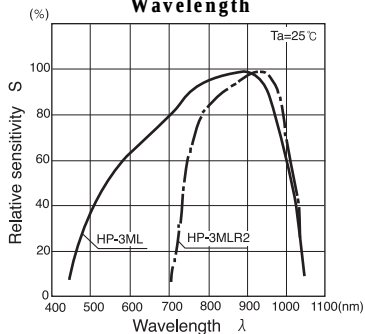
**Short circuit current Vs.
Illuminance**



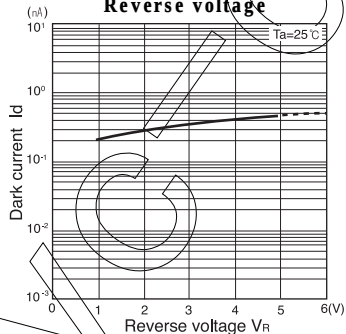
**Dark current Vs.
Ambient temperature**



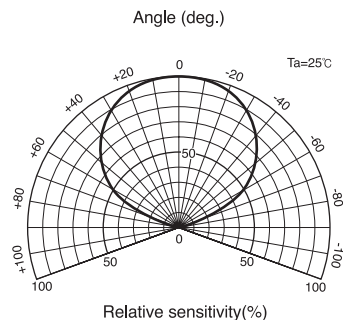
**Relative sensitivity Vs.
Wavelength**



**Dark current Vs.
Reverse voltage**



Radiant Pattern



**Capacitance between terminals Vs.
Reverse voltage**

