

# OPT-1MLA

## Photodarlington

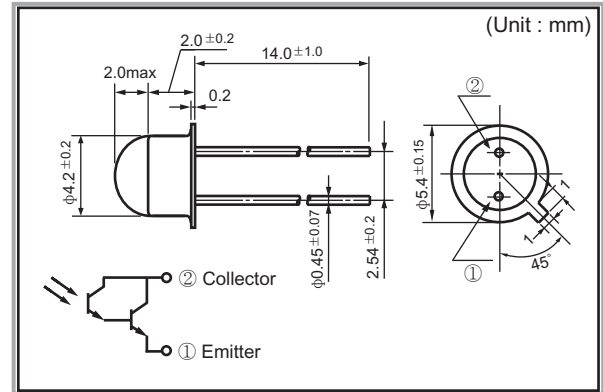
The OPT-1MLA is a high-output NPN silicon photodarlington mounted in TO-18 type header with clear epoxy encapsulation.

### FEATURES

- Wide angular response
- Low profile
- Relatively low cost against metal can package

### APPLICATIONS

- Optical counters
- Optical detectors
- Infrared sensors



### MAXIMUM RATINGS

( $T_a = 25^\circ\text{C}$ )

ITEM	SYMBOL	RATING	UNIT
Collector-Emitter Voltage	$V_{CEO}$	25	V
Emitter-Collector Voltage	$V_{ECO}$	4	V
Collector Current	$I_c$	100	mA
Collector Power Dissipation	$P_c$	100	mW
Operating Temperature	$T_{opr}$	-25 ~ +90	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-25 ~ +95	$^\circ\text{C}$
Soldering Temperature <sup>*1</sup>	$T_{sol}$	260	$^\circ\text{C}$

\*1 For max. 5seconds at the position of 2mm from the resin edge.

### ELECTRO-OPTICAL CHARACTERISTICS

( $T_a = 25^\circ\text{C}$ )

ITEM	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNIT
Collector Dark Current	$I_{CEO}$	$V_{CEO}=10\text{V}$			1.0	$\mu\text{A}$
Light Current	$I_L$	$V_{CE}=5\text{V}$ , 200Lux <sup>*2</sup>	5			mA
C-E Saturation Voltage	$V_{CE(sat)}$	$I_c=1\text{mA}$ , 2000Lux <sup>*2</sup>			1.4	V
Switching Speed	Rise Time	$V_{CC}=10\text{V}$ , $I_c=5\text{mA}$ $R_L=100\Omega$		65		$\mu\text{s}$
	Fall Time			75		$\mu\text{s}$
Spectral Sensitivity	$\lambda$		480 ~ 1,000			nm
Peak Wavelength	$\lambda_p$		800			nm
Half Angle	$\Delta\theta$			$\pm 70$		deg.

\*2 Color temp. = 2856K standard tungsten lamp.

# OSCAR