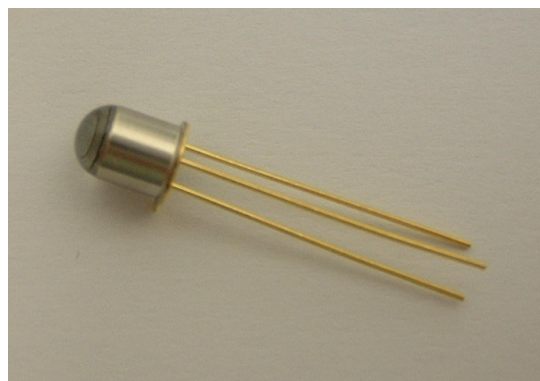


General Description

The OST-1KLB is high sensitivity NPN silicon photo-transistor mounted in durable, hermetically sealed TO-18 metal can which provide years of reliable performance, even under demanding conditions such as use outdoors.

Features

- Narrow angular response
- Durable
- High reliability in demanding environments
- Blue enhanced
- Meet RoHS



Applications

- Optical counters
- Optical detectors
- Infrared sensors
- Encoders
- Smoke detectors

MAXIMUM RATINGS

(Ta=25°C)

Item	Symbol	Rating	Unit
C-E voltage	V _{CEO}	40	V
E-C voltage	V _{ECO}	4	V
Collector current	I _C	50	mA
Collector power dissipation	P _C	150	mW
Operating temp.	T _{opr}	-30 ~ +100	°C
Storage temp.	T _{stg}	-50 ~ +150	°C
Soldering temp. *1	T _{sol}	260	°C

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

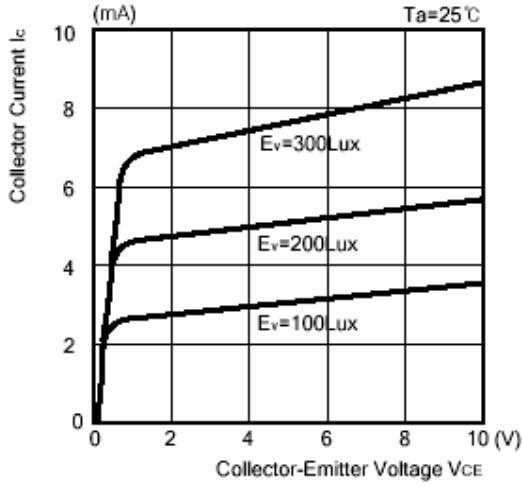
ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25°C)

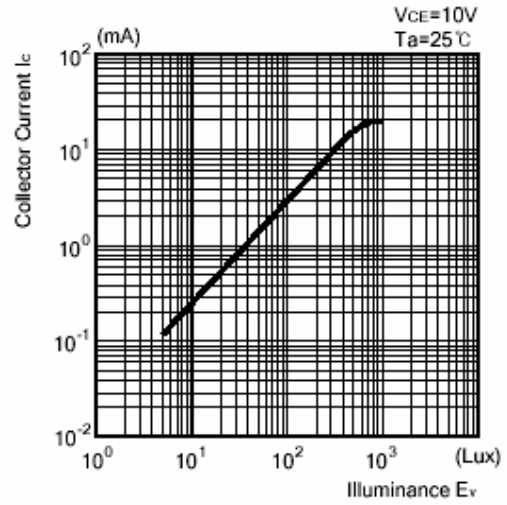
Item	Symbol	Condition	Min	Typ	Max	Unit
Collector dark current	I _{CEO}	V _{CEO} =10V		1	200	nA
Light current	I _L	V _{CE} =10V, 200Lux *2	1.5	6.0	15	mA
C-E saturation voltage	V _{CE(sat)}	I _C =5mA, 2000Lux *2		0.2	0.4	V
Switching speeds	Rise time	V _{CC} =10V, I _C =5mA, R _L =100Ω		8		usec
	Fall time			10		usec
Spectral sensitivity	λ		350 ~ 1050			nm
Peak wavelength	λ _p			880		nm
Half angle	Δθ			±15		deg.

* 2 Illumination is applied by a tungsten lamp of 2856K

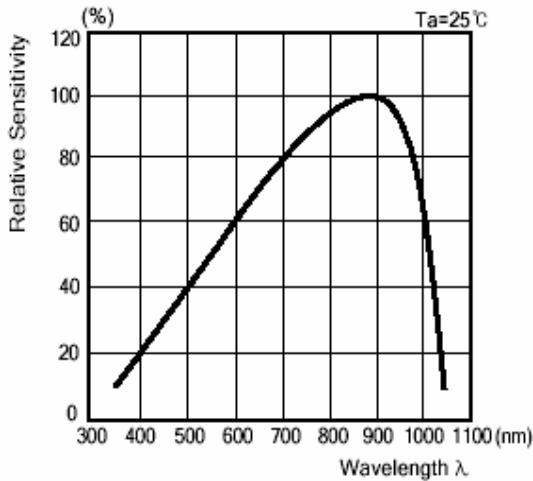
● Collector Current / Collector-Emitter Voltage I_c/V_{CE}



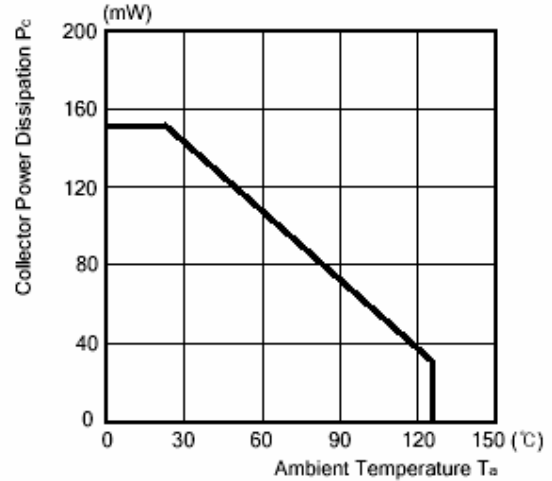
● Collector Current / Illuminance I_c/E_v



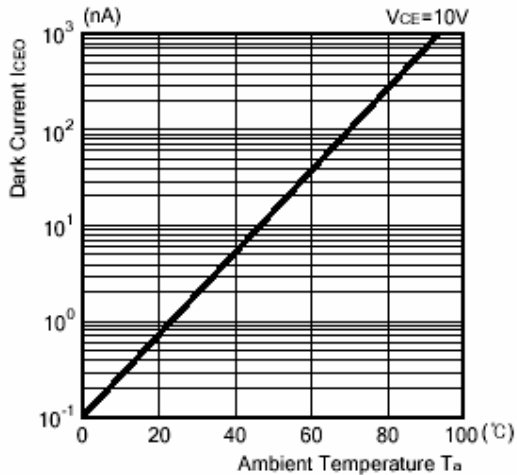
● Spectral Sensitivity



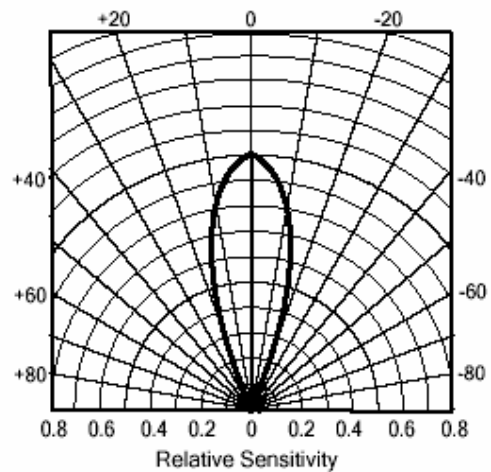
● Collector Power Dissipation / Ambient Temp. P_c/T_a



● Dark Current / Ambient Temperature I_{CE0}/T_a



● Directive Characteristics



DIMENSIONS

(Unit: mm)

