

## PHOTO TRANSISTOR

### General Description

The OST-23G is high sensitivity NPN silicon photo transistor mounted in a black side-looking package , is compact , low profile and easy to mount.



### Features

- Compact
- Low profile package
- Low cost plastic package
- With daylight filter
- Meet RoHS

### Applications

- Optical sensor
- Photo interrupters

### MAXIMUM RATINGS

(Ta=25°C)

Item	Symbol	Rating	Unit
C-E voltage	V <sub>CEO</sub>	30	V
E-C voltage	V <sub>ECO</sub>	5	V
Collector power dissipation	P <sub>C</sub>	100	mW
Operating temp.	T <sub>opr.</sub>	-45 ~ +85	°C
Storage temp.	T <sub>stg.</sub>	-45 ~ +100	°C
Soldering temp. *1	T <sub>sol.</sub>	260	°C

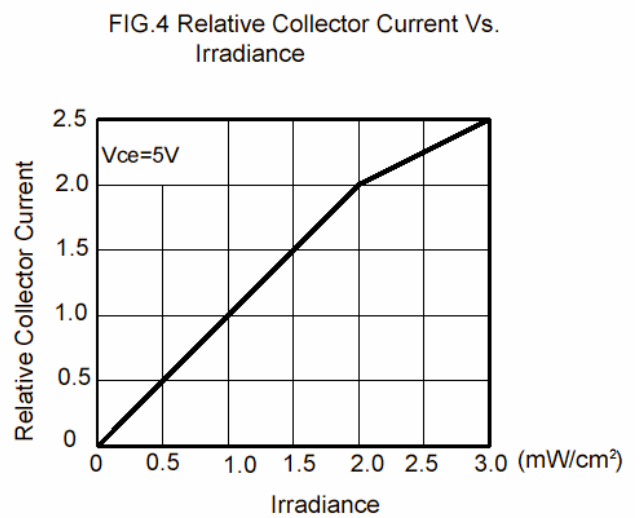
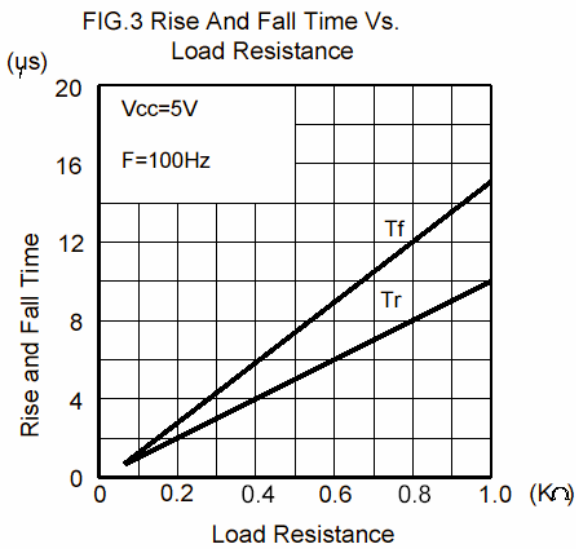
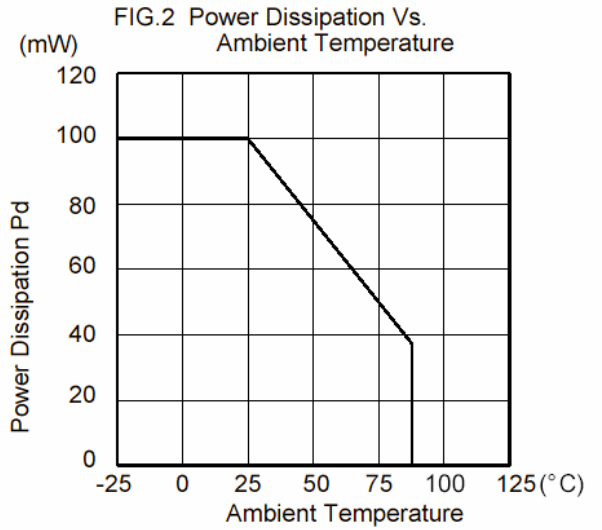
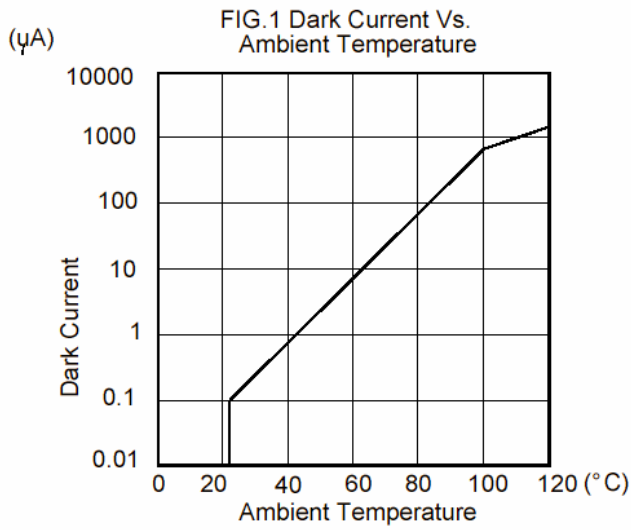
\*1. For MAX. 5 seconds at the position of 2mm from the package

### ELECTRO-OPTICAL CHARACTERISTICS

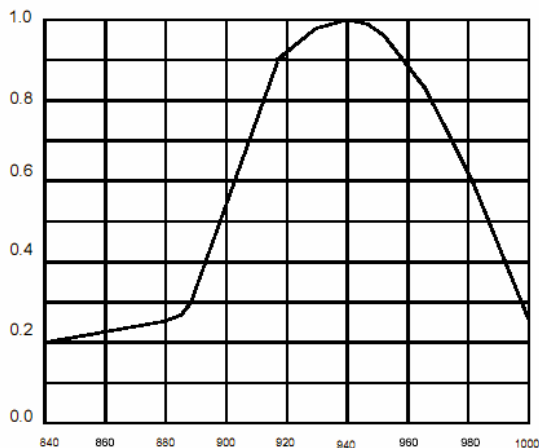
(Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
C-E breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =0.1mA, E <sub>e</sub> =0mW/cm <sup>2</sup>	30	-	-	V
E-C breakdown voltage	V <sub>(BR)ECO</sub>	I <sub>R</sub> =0.1mA, E <sub>e</sub> =0mW/cm <sup>2</sup>	5	-	-	V
C-E saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =0.1mA, E <sub>e</sub> =1mW/cm <sup>2</sup>	-	-	0.5	V
Switching Speeds	Rise time	V <sub>CE</sub> =5V, F=100Hz R <sub>L</sub> =1000Ω	-	10	-	usec
	Fall time		-	15	-	usec
Spectral sensitivity	λ		880 ~ 1000			nm
Peak wavelength	λ <sub>p</sub>		-	940	-	nm
Half angle	Δθ		-	±20	-	deg.

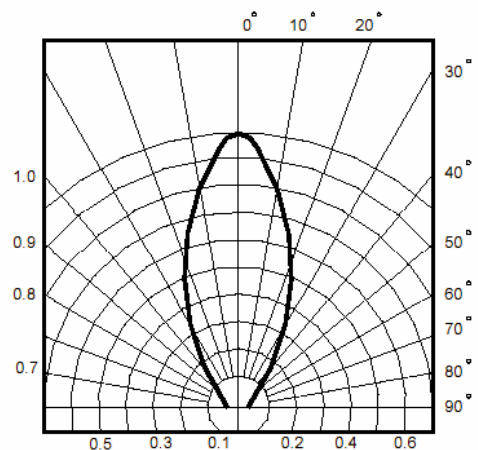
\*2. Illumination is applied by a tungsten lamp of 2856K



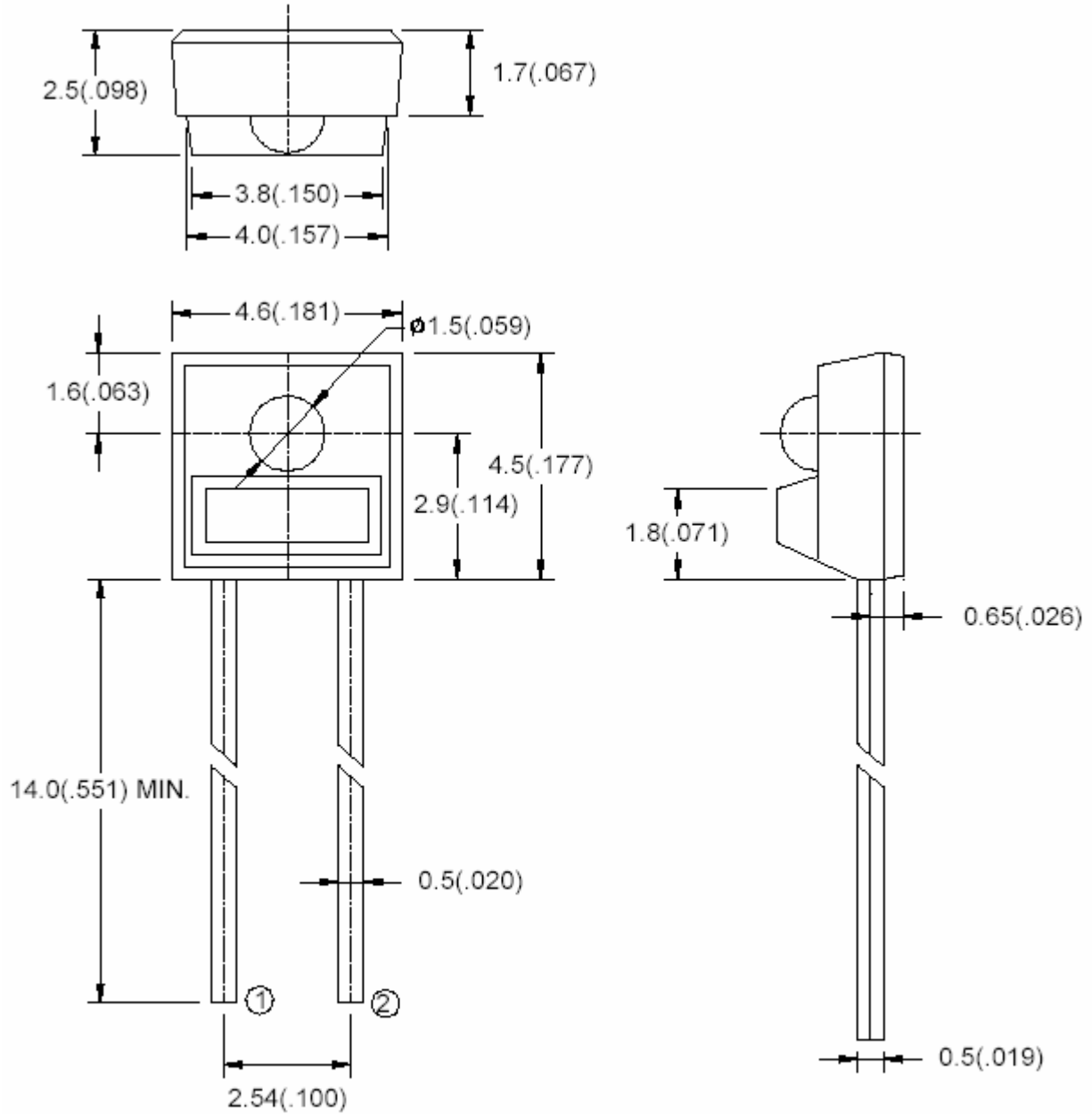
**Fig.5 Receive Wavelength**



**FIG.6 Directivity characteristics**



## DIMENSIONS



1. Emitter
2. Collector

### NOTES :

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.25\text{mm}$  unless otherwise specified.
3. Specifications are subject to change without notice.