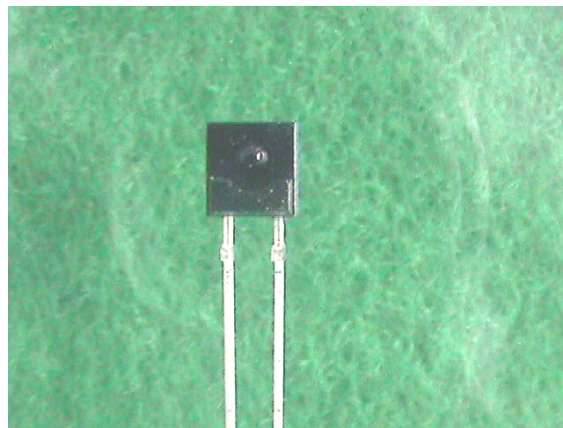


■ General Description

The OST-23F 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)

Item	Symbol	Rating	Unit
C-E voltage	V _{CEO}	30	V
E-C voltage	V _{ECO}	6	V
Collector current	I _C	40	mA
Collector power dissipation	P _C	100	mW
Operating temp.	T _{opr}	-20 ~ +100	
Storage temp.	T _{stg}	-30 ~ +100	
Soldering temp. *1	T _{sol}	260	

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

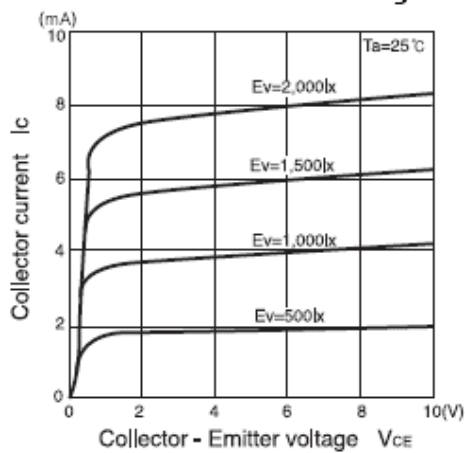
■ ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25)

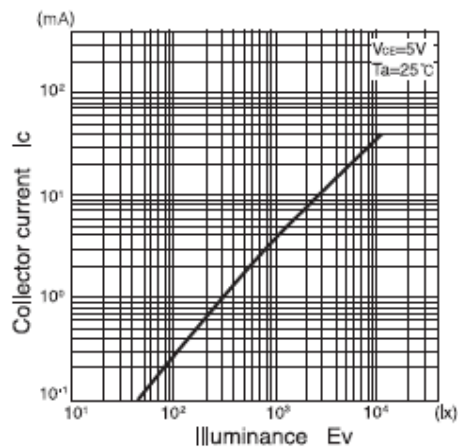
Item	Symbol	Condition	Min	Typ	Max	Unit
Collector dark current	I _{CEO}	V _{CEO} =10V		1	100	nA
Light current	I _L	V _{CE} =5V, 1000Lux *2	0.5	4.0	20	mA
C-E saturatuon voltage	V _{CE(sat)}	I _C =0.5mA, 2000Lux *2		0.2	0.4	V
Switching speeds	Rise time	V _{CC} =10V , I _C =5mA , R _L =100 Ω		3.2		usec
	Fall time			4.8		usec
Spectral sensitivity	λ		720 ~ 1050			nm
Peak wavelength	λ _p			940		nm
Half angle	Δ θ			±30		deg.

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

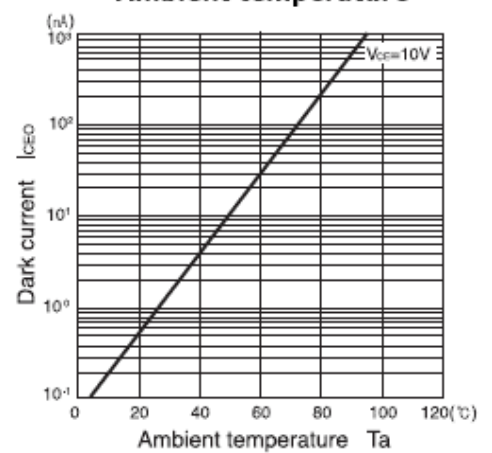
**Collector current Vs.
Collector - Emitter voltage**



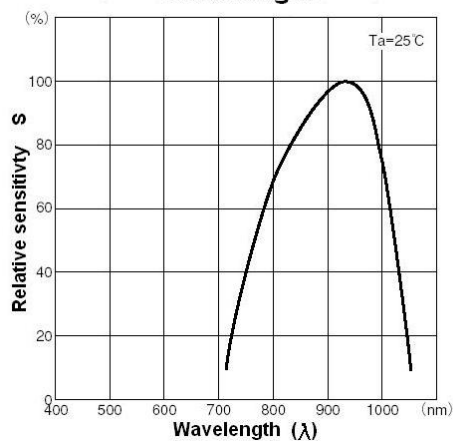
**Collector current Vs.
Illuminance**



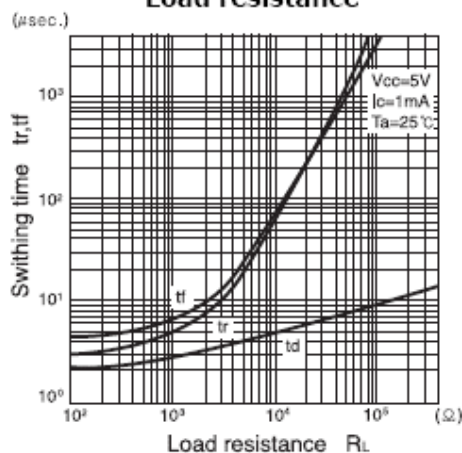
**Dark current Vs.
Ambient temperature**



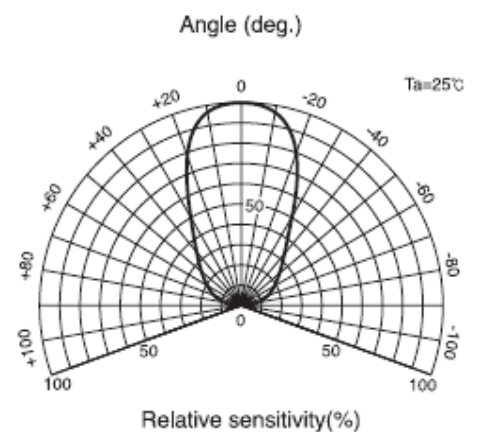
**Relative sensitivity VS.
Wavelength**



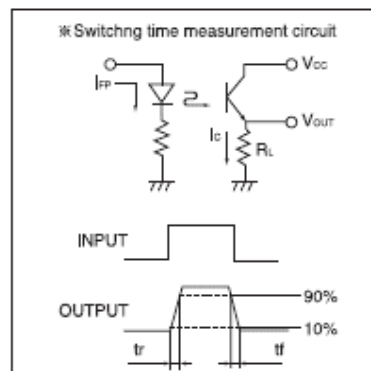
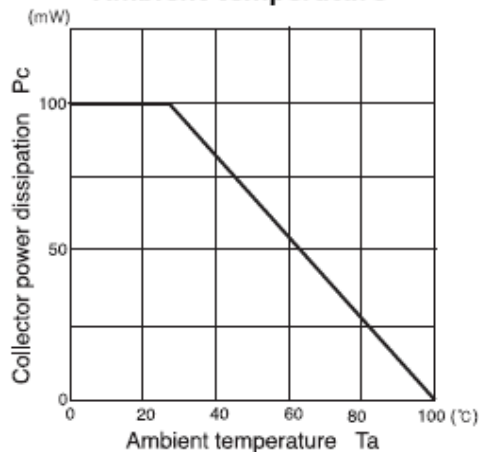
**Switching time vs.
Load resistance**



Radiant Pattern



**Collector power dissipation Vs.
Ambient temperature**



DIMENSIONS

(Unit: mm)

