

PHOTO TRANSISTOR

General Description

The OST-8LR2 is high sensitivity NPN silicon photo transistor mounted in a black plastic package. With lensed package, this phototransistor permits wide angular response.

Features

- Lens Appearance : Black Clear
- Wide beam angle
- Compact
- Meet RoHS

Applications

- Optical counters
- Optical detectors
- Camera stroboscopes



MAXIMUM RATINGS

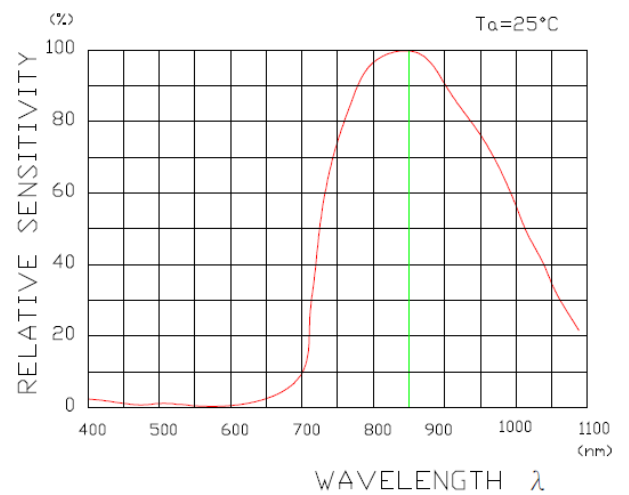
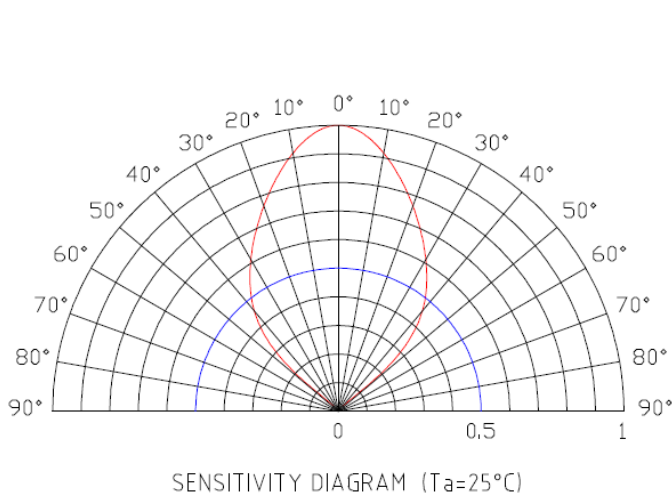
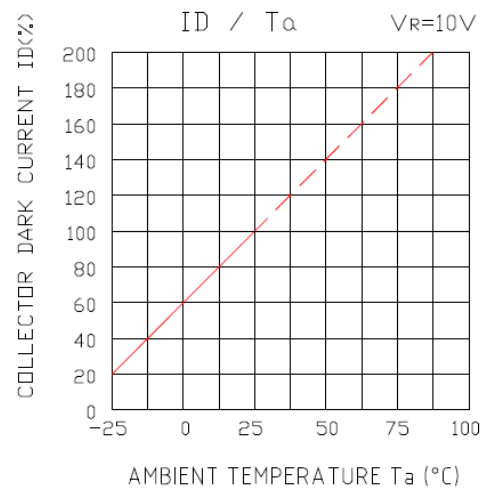
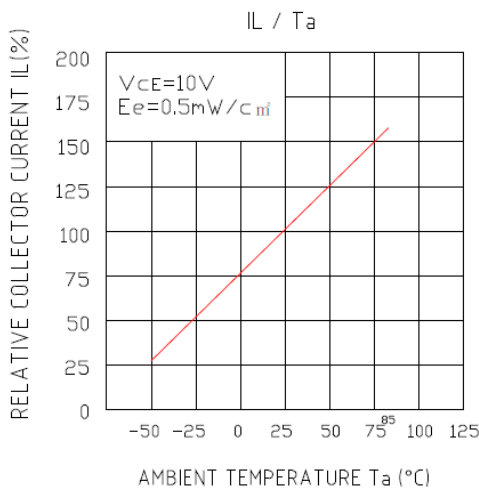
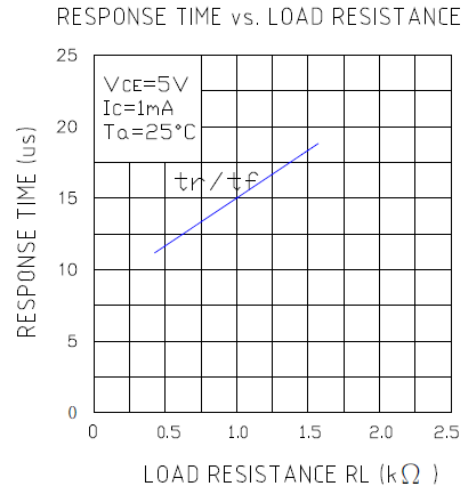
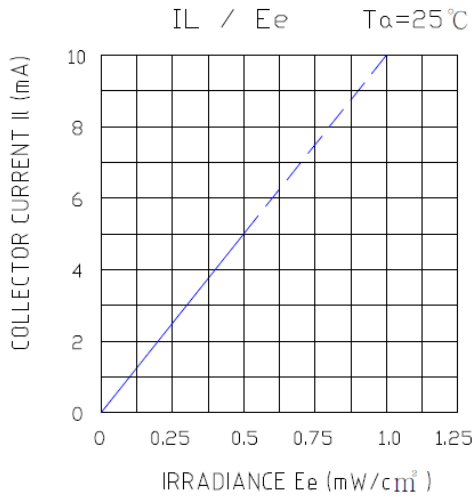
(Ta=25°C)

Item	Symbol	Rating	Unit
Power dissipation	P _D	100	mW
Operating temp.	T _{opr.}	-40 ~ +85	°C
Storage temp.	T _{stg.}	-40 ~ +100	°C

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector-Emitter breakdown voltage	BV _{ceo}	I _c =100uA	30	-	100	V
Emitter-collector breakdown voltage	BV _{eco}	I _E =100uA	6.5	-	-	V
Collector dark current	I _{CEO}	V _{ce} =20V	-	-	100	nA
Light current	I _L	V _{ce} =10V , λ _p =940nm E _e =0.5 mW/cm ²	2.4	6.2	-	mA
C-E saturation voltage	V _{CE(sat)}	I _c =2mA , I _B =100uA	-	-	0.2	V
Switching Speeds	Rise time	V _{ce} =5V , I _c =1mA R _L =1000Ω	-	15	-	usec
	Fall time		-	15	-	usec
Current gain	h _{FE}	V _{ce} =5V , I _c =2mA	1600	-	-	
Radiant sensitivity area	A		-	0.18	-	mm ²
Peak wavelength	λ _p		-	850	-	nm
Half angle	Δθ		-	±37	-	deg.



Soldering Profile

Compliant with the following condition :

- (1) Leaded quantity of product below 100 ppm
- (2) Lead-free process

Shape	Lead Frame Type / Holder Type
Hand soldering	1. Temp. at tip of iron : 300 °C MAX (30W MAX). 2. Soldering time : 3 sec MAX. 3. Distance : 3 mm MIN (from solder joint to case)
DIP soldering	1. Preheat temp : 100 °C MAX , 60 sec MAX. 2. Bath temp : 260 °C MAX. 3. Bath time : 5 sec MAX. 4. Distance : 3 mm MIN (From solder joint to case).
Reflow soldering	No
Shape	SMD Type
Hand soldering	1. Temp. at tip of iron : 300 °C MAX (30W MAX). 2. Soldering time : 3 sec MAX.
DIP soldering	1. Preheat temp. : 120-150 °C , 60-120 sec. 2. Bath temp. : 260 °C MAX. 3. Bath time : 5 sec
Reflow soldering	1. Preheat temp. : 150-180 °C , 120 sec MAX. 2. Peak temp. : 260 °C MAX. 3. Peak time : 10 sec MAX

