

SST5001 Photo Transistor

SST5001 consists of two high sensitivity NPN silicon phototransistors mounted in a sidelooking package, It is compact and easy to mount.

Features

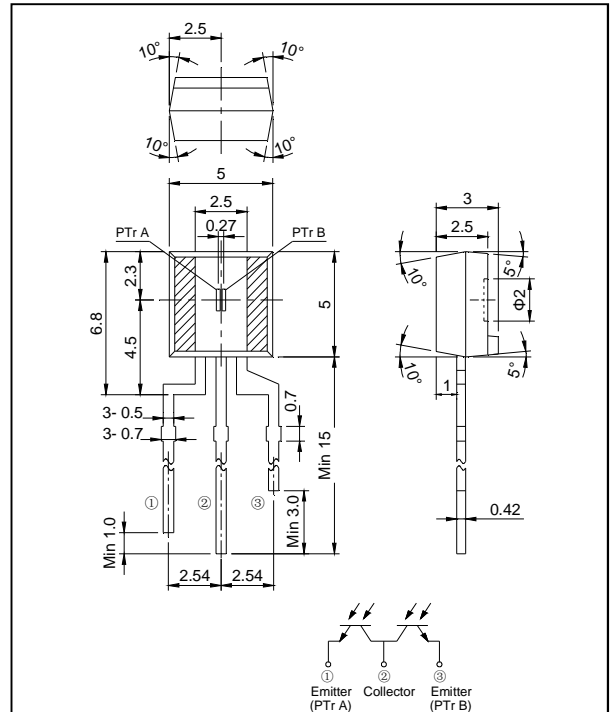
- Compact
- Low-cost
- Dual channel
- Sidelooking plastic package

Application

- Photointerrupters
- Optical detectors
- Optical counters

Dimensions

(Unit:mm)



MAXIMUM RATINGS

(Ta= 25°C)

Item	Symbol	Rating	Unit
C-E voltage	V_{CEO}	30	V
E-C voltage	V_{ECO}	5	V
Collector current	I_C	30	mA
Collector power dissipation	P_C	100	mW
Operating temp.	$T_{opr.}$	-25~+85	°C
Storage temp.	$T_{stg.}$	-30~+100	°C
Soldering temp. * 1	$T_{sol.}$	260	°C

*1. Lead Soldering Temperature(3mm from case for 5sec)

ELECTRO- OPTICAL CHARACTERISTICS

(Ta= 25°C)

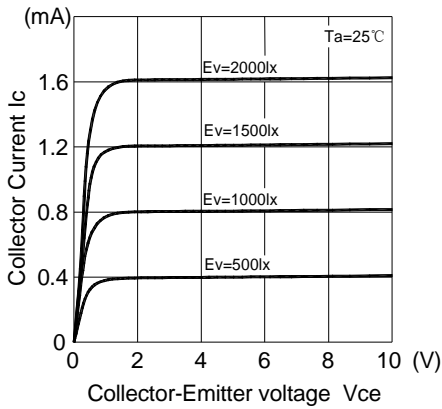
Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Collector dark current	I_{CEO}	$V_{CEO}=10V$	-	-	500	nA
Light current	I_{CEL}	$V_{CE}=5V, E_V=1000 \text{ lx}^{-2}$	0.5	-	1.5	mA
Light current proportion	I_{CEL}^1/I_{CEL}^2	$V_{CE}=5V, E_V=1000 \text{ lx}^{-2}$	0.8	-	1.2	
C-E saturation voltage	$V_{ce(sat)}$	$I_C=0.5mA, E_V=2000 \text{ lx}^{-2}$	-	-	0.4	V
Switching speeds Rise time	t_r	$V_{CC}=10V, I_C=5mA, R_L=100\Omega$	-	3.2	-	μsec
Switching speeds Fall time	t_f		-	4.8	-	μsec
Spectral sensitivity	λ		880~1,050			nm
Peak wavelength	λ_p		-	960	-	nm
Half angle	$\Delta\theta$		-	± 60	-	deg.

*2. Irradiance by CIE standard light source A (2856K tungsten lamp)

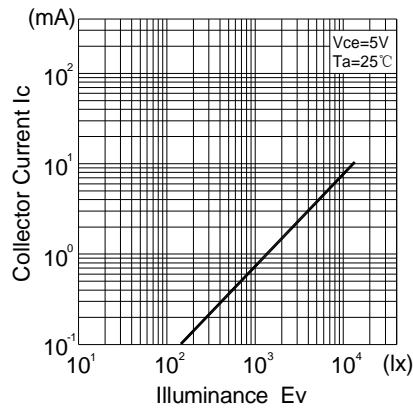
Photo Transistor

SST5001

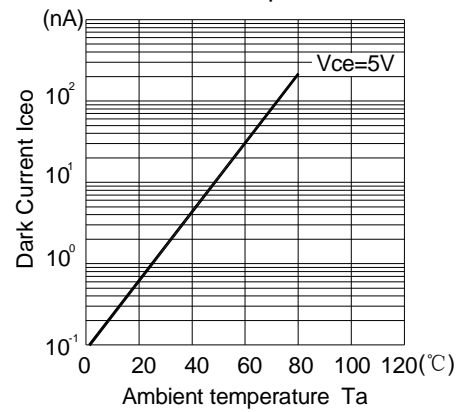
Collector current Vs. Collector-Emitter Voltage



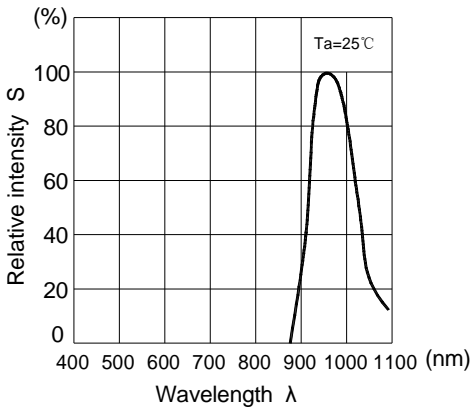
Collector current Vs. Illuminance



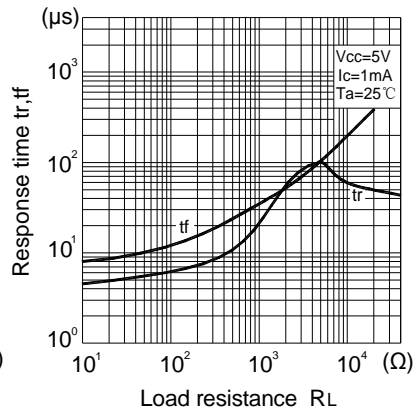
Dark Current Vs. Ambient temperature



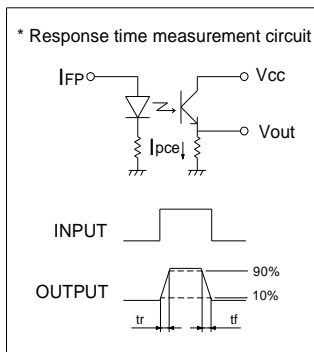
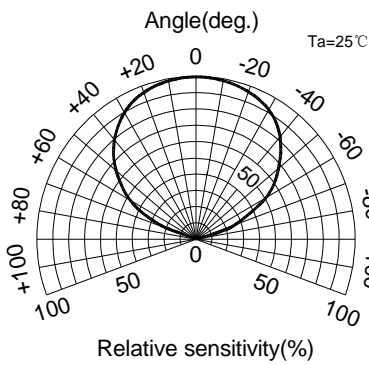
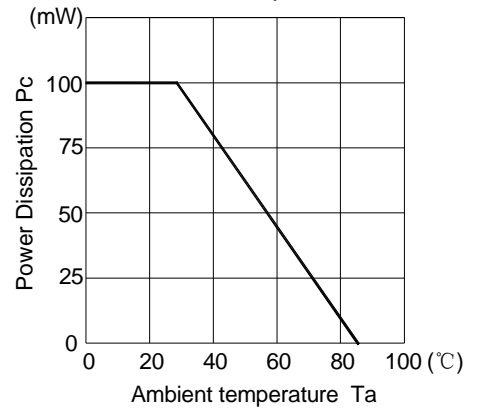
Relative sensitivity Vs. Wavelength



Response time Vs. Load resistance



Power Dissipation Vs. Ambient Temperature



Packing Specification

1. Fixed quantity (500pcs) of the products are packed into plastic bag
2. Five bags of the products are put into #1 box
3. Ten #1 boxes are put into #2 box and two #2 boxes are put into #3 box (max 50,000pcs)
4. Packing slit is pasted on the out box

