

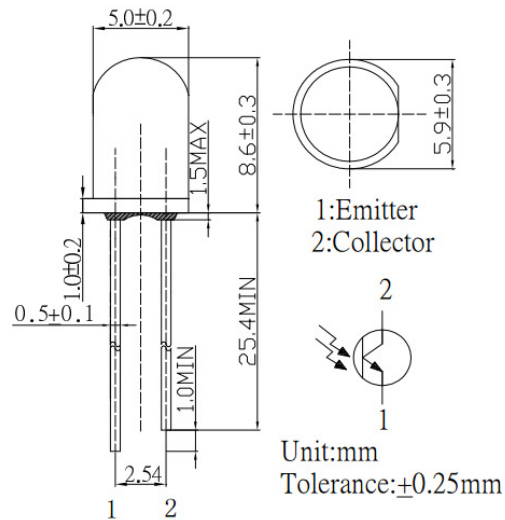
■ Features

- Fast response time
- High photo sensitivity
- Superior Weather-resistance
- Pb free
- The product itself will remain within RoHS compliant version.
- Black Lens Type

■ Applications

- Infrared applied system
- VCRs, Video camera
- Floppy disk drive
- Optoelectronic switch

■ Outline Dimension



■ Absolute Maximum Rating (Ta=25°C)

Item	Symbol	Value	Unit
DC Forward Current	I _c	20	mA
Collector-Emitter Voltage	V _{CEO}	30	V
Emitter-Collector-Voltage	V _{ECO}	5	V
Power Dissipation	P _c	100	mW
Operating Temperature	Topr	-25 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	°C
Lead Soldering Temperature	Tsol	260°C/ 5sec	-

*Pulse width Max.10ms Duty ratio max 1/10

■ Electrical -Optical Characteristics (Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Collector – Emitter Breakdown Voltage	BV _{CEO}	I _c =1mA E _e =0mW/cm ²	30	--	--	V
Emitter-Collector Breakdown Voltage	BV _{ECO}	I _E =100 μA E _e =0mW/cm ²	5	--	--	V
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =80 μA E _e =1mW/cm ²	--	--	0.4	V
Rang Of Spectral Bandwidth	λ 0.5	---	760	--	1100	nm
Wavelength Of Peak Sensitivity	λ _P	---	-	940	---	nm
Rise Time	t _r	V _{cc} =5V I _c =0.5mA RL=1000Ω	-	15	-	μ S
Fall Time	t _f		-	15	-	
Collector Dark Current	I _{CEO}	E _e =0mW/c m ² V _{ce} =10V	-	-	100	nA
On State Collector Current	I _{C(on)}	E _e =1mW/cm ² V _{ce} =5V	0.7	2.0	--	mA

*1 Tolerance of dominant wavelength is ±1nm

*2 Tolerance of luminous intensity is ±15%

Typical Electro-Optical Characteristics Curves

Fig.1 Collector Power Dissipation vs. Ambient Temperature

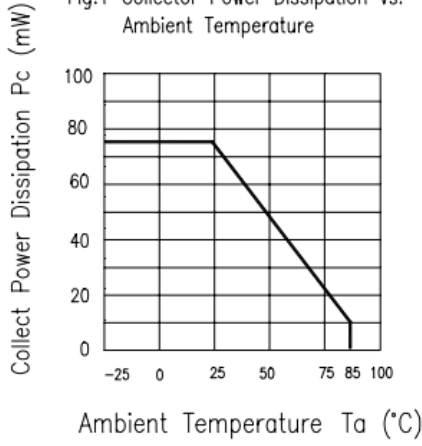


Fig.2 Collector Dark Current vs. Ambient Temperature

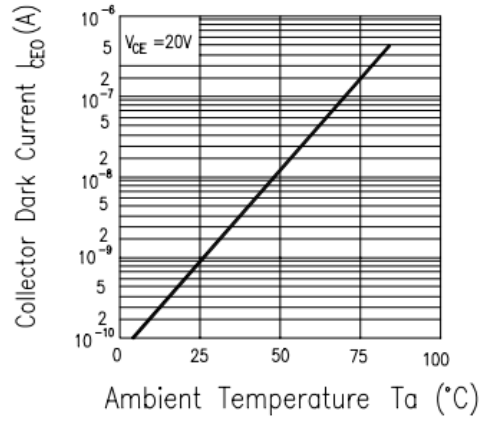


Fig.5 Spectral Sensitivity

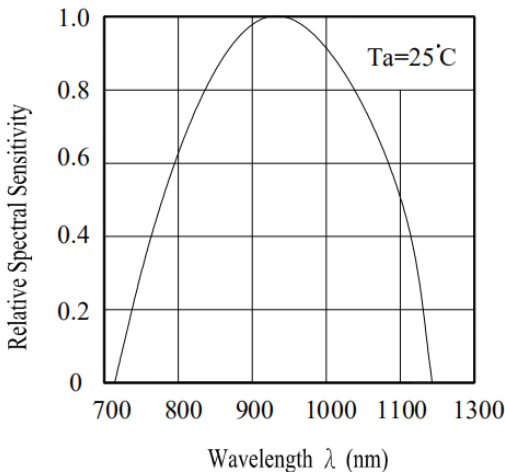
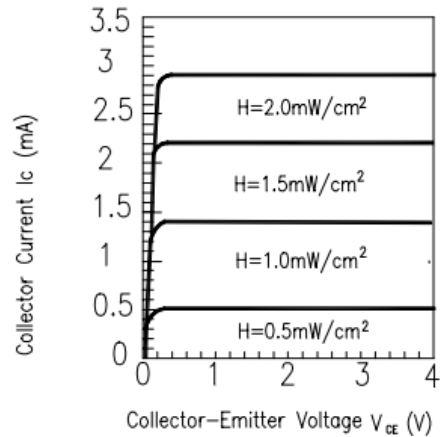


Fig.6 Collector Current vs. Collector-Emitter Voltage



Reliability

The reliability of products shall be satisfied with items listed below.

Confidence level: 90%

LTPD: 10%

NO.	Item	Test Conditions	Test Hours/ Cycles	Sample Size	Failure Judgement Criteria	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 secs	22 pcs	$I_{c(on)} \leq L \times 0.8$ L : Lower specification limit	0/1
2	Temperature Cycle	H : +85°C 30 mins ↓ 5 mins ↓ L : -55°C 30 mins	50 cycles	22 pcs		0/1
3	Thermal Shock	H : +100°C 5 mins ↓ 10 secs ↓ L : -10°C 5 mins	50 cycles	22 pcs		0/1
4	High Temperature Storage	TEMP. : +100°C	1000 hrs	22 pcs		0/1
5	Low Temperature Storage	TEMP. : -55°C	1000 hrs	22 pcs		0/1
6	DC Operating Life	$V_{CE}=5V$	1000 hrs	22 pcs		0/1
7	High Temperature / High Humidity	85°C / 85% R.H.	1000 hrs	22 pcs		0/1

■ **Test Method For On State Collector Current :**

Condition : $E_e=1\text{mW}/\text{cm}^2$, $V_{CE}=5\text{V}$

Test Item : Collector Current [$I_{C(on)}$]

Unit : mA

