

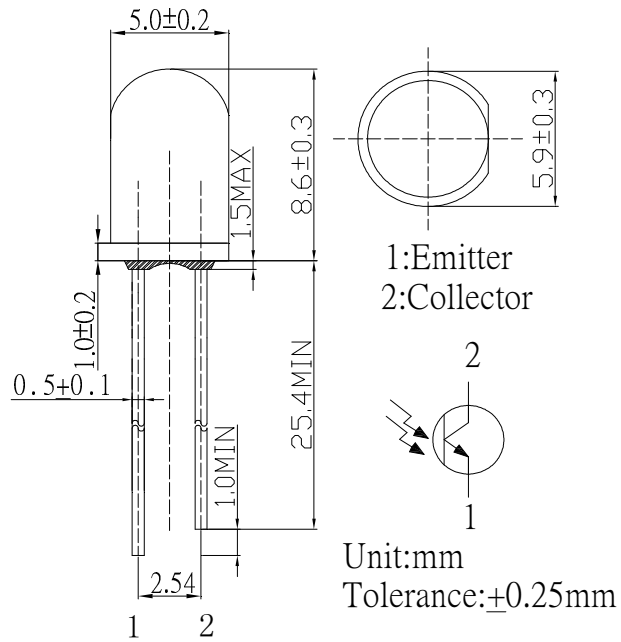
■ **Features**

- Fast response time
- High photo sensitivity
- Superior Weather-resistance
- Pb free
- The product itself will remain within RoHS compliant version.
- Water Clear 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	T_{opr}	-25 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +85	°C
Lead Soldering Temperature	T_{sol}	260°C/ 5sec	-

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

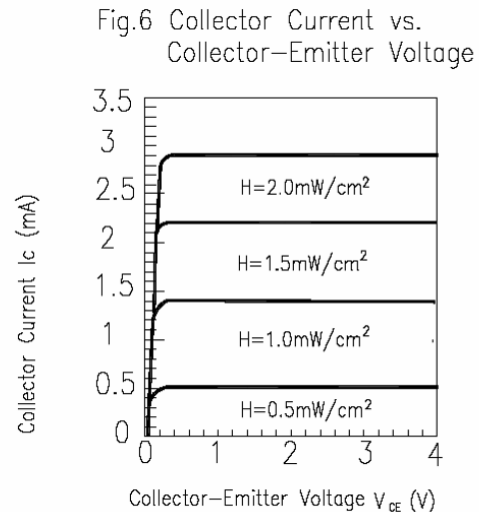
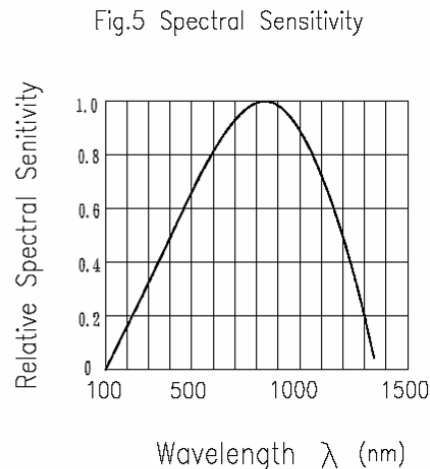
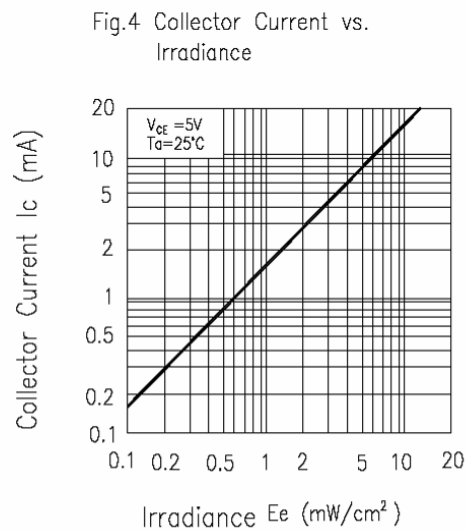
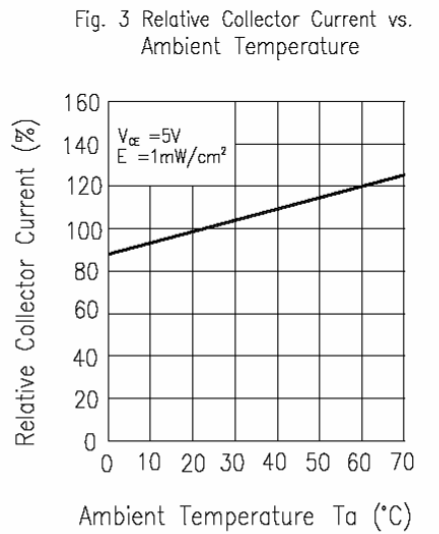
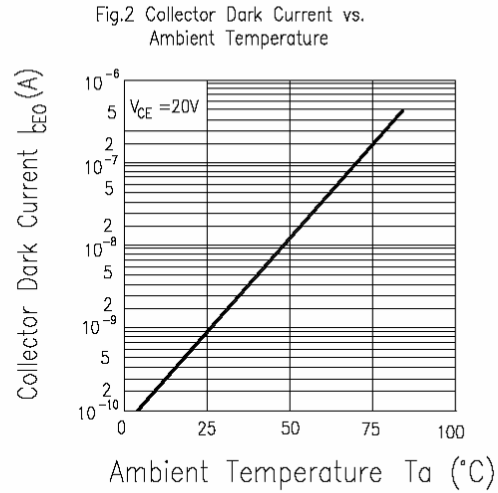
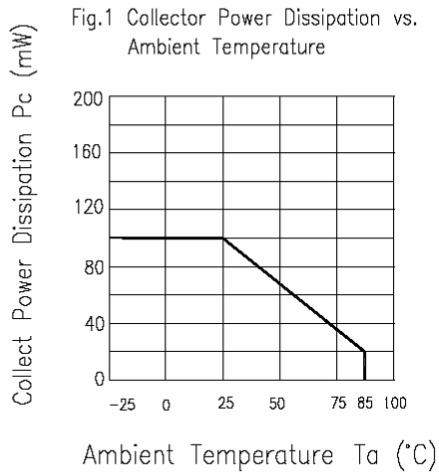
■ **Electrical -Optical Characteristics** (Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Collector – Emitter Breakdown Voltage	BV_{CEO}	$I_C=1\text{mA}$ $E_e=0\text{mW/cm}^2$	30	--	--	V
Emitter-Collector Breakdown Voltage	BV_{ECO}	$I_E=100\ \mu\text{A}$ $E_e=0\text{mW/cm}^2$	5	--	--	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=80\ \mu\text{A}$ $E_e=1\text{mW/cm}^2$	--	--	0.4	V
Rang Of Spectral Bandwidth	λ 0.5	---	400	--	1200	nm
Wavelength Of Peak Sensitivity	λ_p	---	-	860	---	nm
Rise Time	t_r	$V_{cc}=5\text{V}$ $I_C=0.5\text{mA}$ $R_L=1000\ \Omega$	-	15	-	μS
Fall Time	t_f		-	15	-	
Collector Dark Current	I_{CEO}	$E_e=0\text{mW/cm}^2$ $V_{ce}=10\text{V}$	-	-	100	nA
On State Collector Current	$I_C(on)$	$E_e=1\text{mW/cm}^2$ $V_{ce}=5\text{V}$	1.77	3.0	--	mA

*1 Tolerance of dominant wavelength is $\pm 1\text{nm}$

*2 Tolerance of luminous intensity is $\pm 15\%$

Typical Electro-Optical Characteristics Curves



Reliability

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

Confidence level: 90%

LTPD: 10%

Test Items	Test Conditions	Failure Judgement Criteria	Samples(n)
			Defective(c)
Operation life	$V_{CE}=5V$, $T_a : 25^{\circ}C$ 1000hrs	$I_{C(on)} \leq L \times 0.8$ L : Lower specification limit	n =22 , c=0
Temperature cycle	1 cycle $-55^{\circ}C$ to $+25^{\circ}C$ to $+85^{\circ}C$ (30min) (5min) (30min) 50 cycle test		n =22 , c=0
Thermal shock	$-10^{\circ}C$ to $+100^{\circ}C$ (5min) (10sec) (5min) 50cycle test		n =22 , c=0
High temperature storage	Temp : $+100^{\circ}C$ 1000hrs		n =22 , c=0
Low temperature storage	Temp : $-55^{\circ}C$ 1000hrs		n =22 , c=0
High temperature High humidity	$T_a : 85^{\circ}C$ RH : 85% 1000hrs		n =22 , c=0
Solder heat	Temp : $260 \pm 5^{\circ}C$ 5sec 4mm Form the bottom of the package.		n =22 , c=0
Solderability	Temp : $230 \pm 5^{\circ}C$ 5sec 4mm Form the bottom of the package.	More than 90% of Lead to be covered by soldering	n =22 , c=0

■ **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

