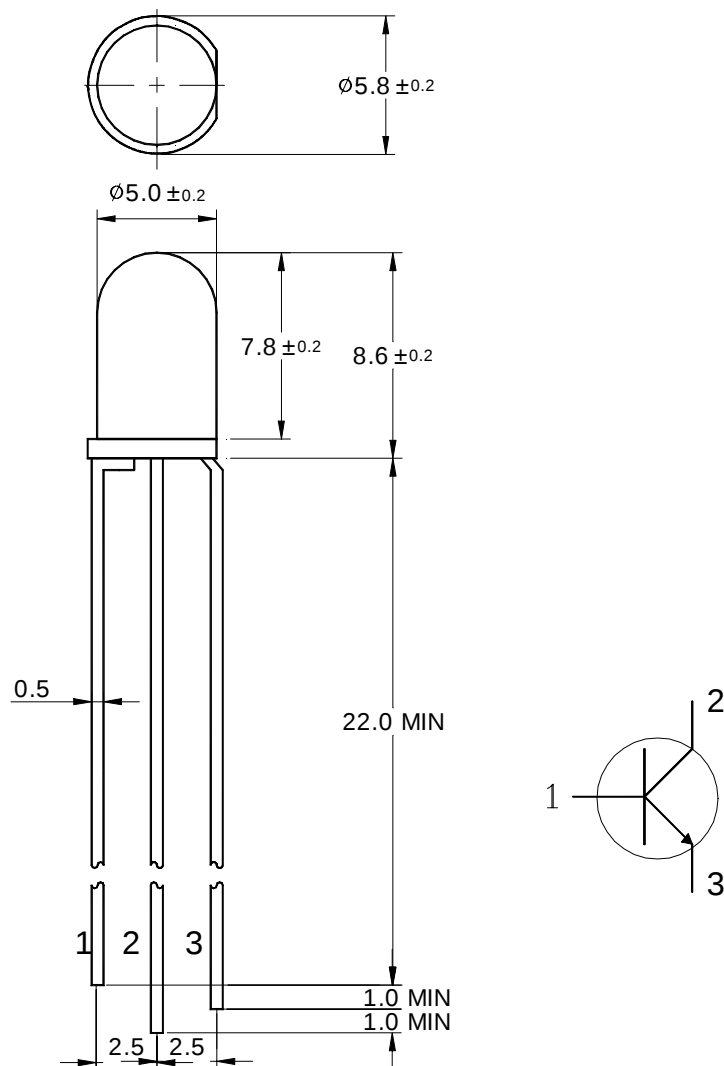


Features

- Lensed for high sensitivity
- $\phi 5\text{mm}$ (T-1³/₄) all plastic mold type
- High reliability and stable characteristics
- Visible light cut-off type
- With base terminal

Outline Dimensions**unit : mm****PIN Connections**

- 1. Base
- 2. Collector
- 3. Emitter

Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Collector Voltage	V_{ECO}	6	V
Collector-Base Voltage	V_{CBO}	30	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	20	mA
Collector Power Dissipation	P_D	75	mW
Operating Temperature	T_{opr}	-25 85	
Storage Temperature	T_{stg}	-30 100	
*1Soldering Temperature	T_{sol}	260 for 5 seconds	

*1. Keep the distance more than 2.0mm from PCB to the bottom of LED package

Electrical Characteristics

Characteristic		Symbol	Test Condition	Min	Typ	Max	Unit
Current Dark Current		I_{CEO}	$V_{CEO}=10V, E_e=0$	-	0.05	0.5	uA
* ³ Light Current		I_{CEL}	$V_{CE}=5V, E_e \ 1mW/cm^2$	-	5	-	mA
Current-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=0.5mA, E_e \ 1mW/cm^2$	-	0.18	-	V
Switching Time	Rise Time	t_r	$V_{CC}=2V, I_C=1mA$ $R_1=100\Omega$	-	10	-	us
	Fall Time	t_f			10		
Spectral Sensitivity		λ	-	700 ~ 1000			nm
Peak Sensitivity Wavelength		λ_p	-	-	880	-	nm
Half angle		$\theta_{1/2}$	-	-	±35	-	deg

*1. Tolerance = ±30%

Characteristic Diagrams

Fig. 1 $I_{CEL} - E_e$

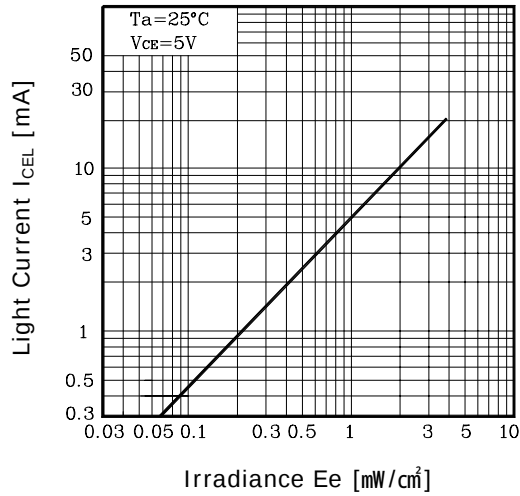


Fig. 2 $I_{CEL} - V_{CE}$

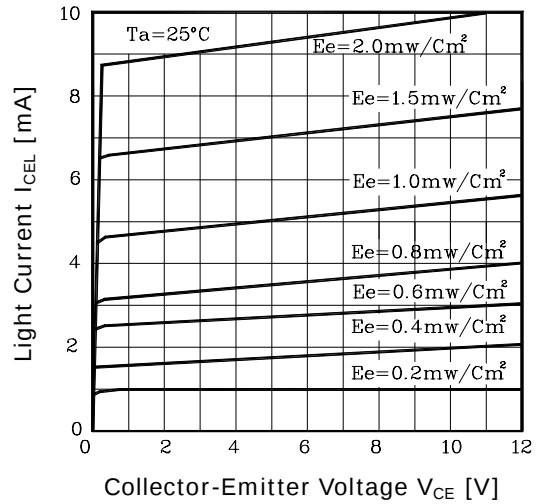


Fig. 3 $P_D - T_a$

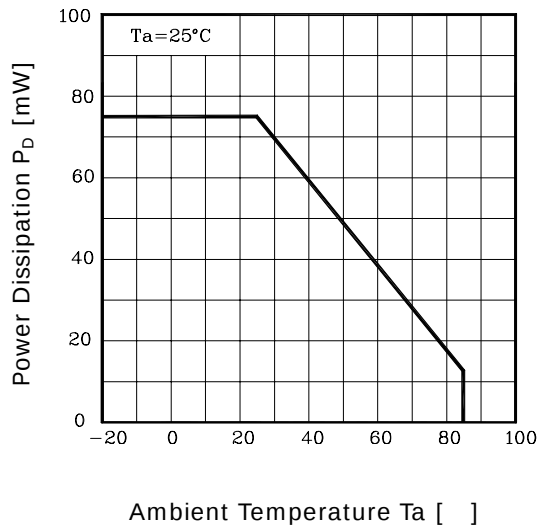


Fig. 4 $I_{CEO} - T_a$

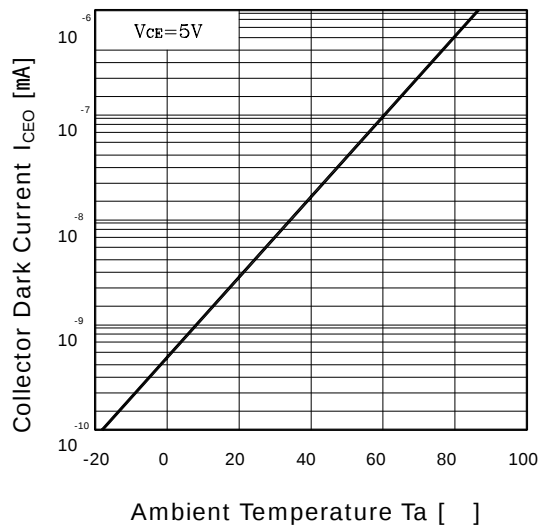


Fig. 5 Spectrum Sensitivity

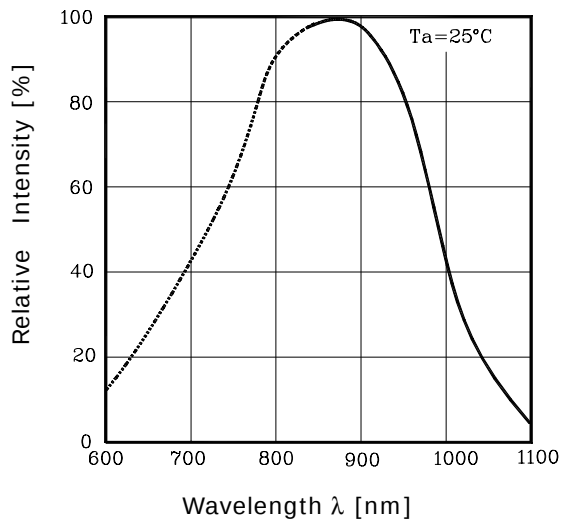
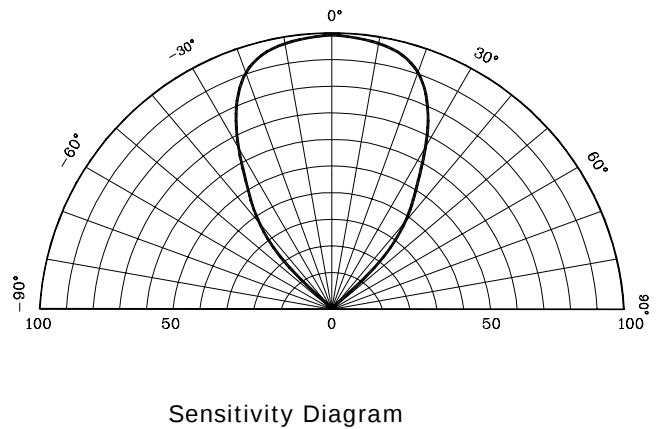


Fig. 6 Sensitivity Diagram



Characteristic Diagrams

Fig. 7 $I_{CEL} - E_e$

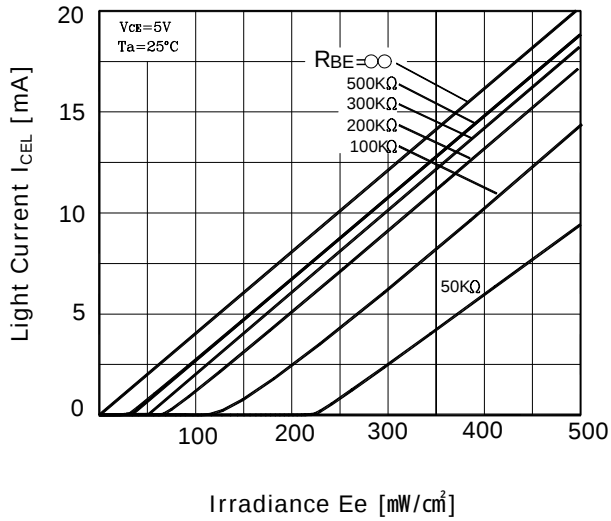


Fig. 8 Spectrum Sensitivity

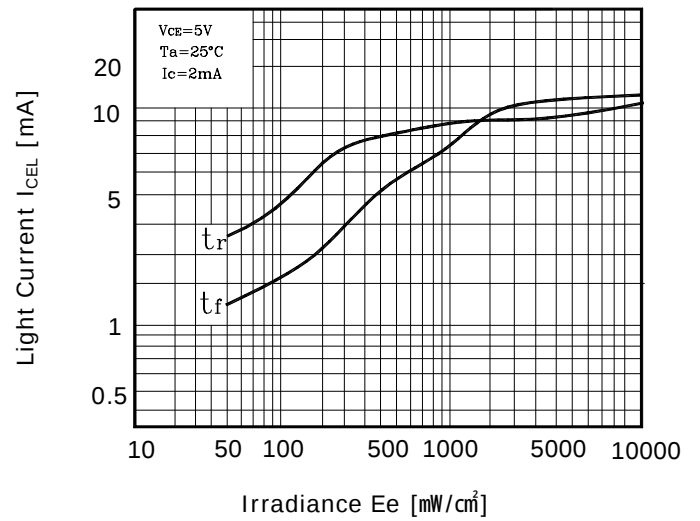


Fig. 9 Switching Time Test Circuit

