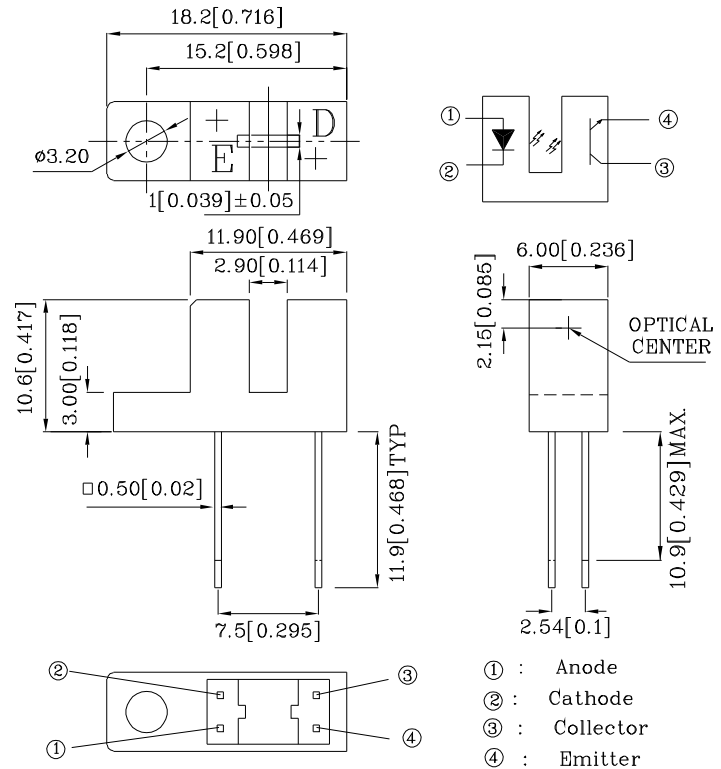


Features

- Ultra-small.
- Minimal influence from stray light.
- Low collector-emitter saturation voltage.
- RoHS Compliant.

Applications

- Optical control equipment.
- Cameras.
- Floppy disk drives.



UNIT : MM[INCH]

TOLERANCE : ± 0.25[± 0.01] UNLESS OTHERWISE NOTED.

Absolute Maximum Ratings (T_A=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward Current	I _F	50	mA
	Reverse Voltage	V _R	6	V
	Power Dissipation	P _d	75	mW
	Peak Forward Current (Pulse Width ≤ 100uS, Duty Cycle =1%)	I _{FP}	1	A
Output	Collector-Emitter Voltage	V _{CEO}	35	V
	Emitter-Collector Voltage	V _{ECO}	6	V
	Collector Current	I _C	20	mA
	Collector Power Dissipation	P _C	75	mW
Operating Temperature		T _{opr}	-25~+85	°C
Storage Temperature		T _{stg}	-40~+100	°C
Soldering Temperature (1/16 inch from body for 5 seconds)		T _{sol}	260	°C

Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V_F	$I_F=20\text{mA}$	-	1.2	1.5	V
	Reverse Current	I_R	$V_R=5\text{V}$	-	-	10	μA
	Peak Wavelength	λ_P	$I_F=20\text{mA}$	-	940	-	nm
Output	Collector Dark Current	I_{CEO}	$V_{CE}=20\text{V}$	-	-	100	nA
Transfer Characteristics	Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=1\text{mA}$ $I_F=40\text{mA}$	-	-	0.4	V
	Current Transfer Ratio	CTR	$V_{CE}=5\text{V}$ $I_F=20\text{mA}$	-	38	-	%
	Response Time	Rise Time	t_r	$V_{CE}=2\text{V}$ $I_C=2\text{mA}$	-	5	25
Fall Time		t_f	$R_L=100\Omega$	-	4	20	μSec

Fig.1 FORWARD CURRENT Vs. FORWARD VOLTAGE

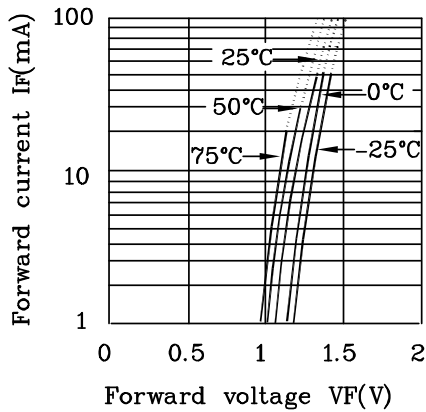


Fig.2 COLLECTOR CURRENT Vs. FORWARD CURRENT

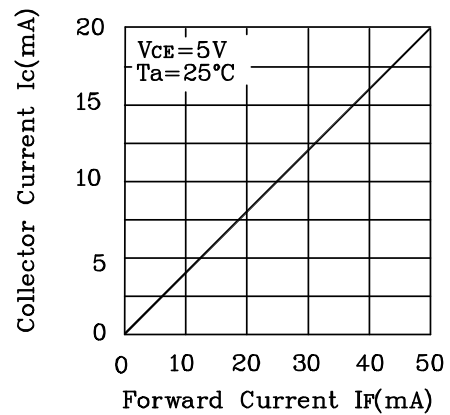


Fig.3 COLLECTOR CURRENT Vs. COLLECTOR-EMITTER VOLTAGE

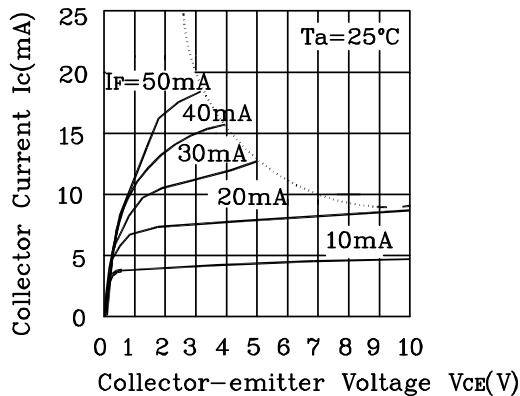


Fig.4 COLLECTOR CURRENT Vs. AMBIENT TEMPERATURE

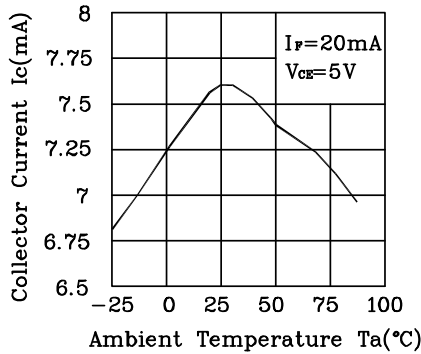


Fig.5 COLLECTOR-EMITTER SATURATION VOLTAGE Vs. AMBIENT TEMPERATURE

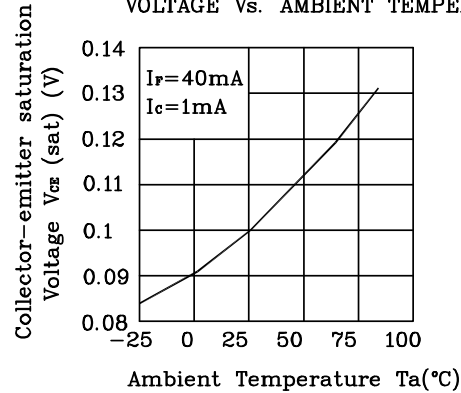


Fig.6 RELATIVE COLLECTOR CURRENT Vs. SHIELD DISTANCE (1)

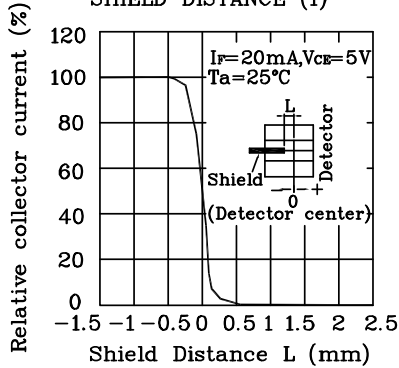


Fig.7 RELATIVE COLLECTOR CURRENT Vs. SHIELD DISTANCE (2)

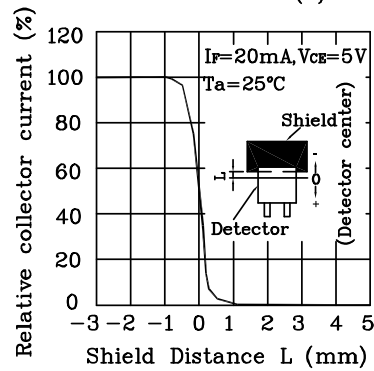
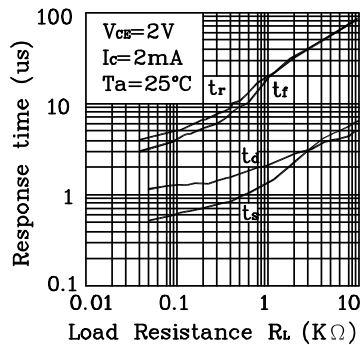
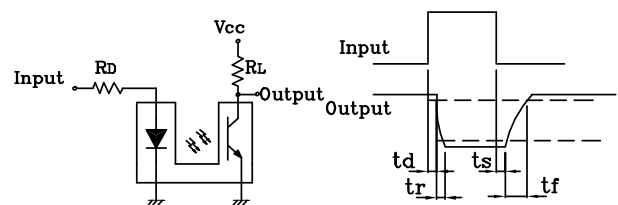


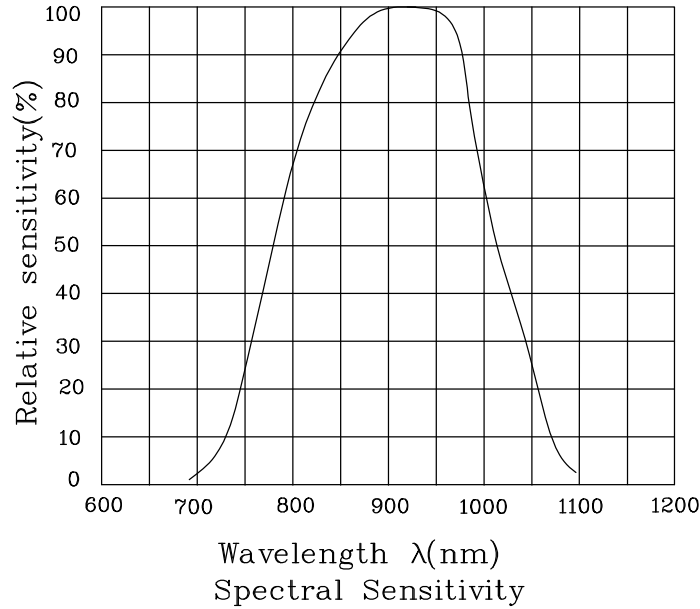
Fig.8 RESPONSE TIME Vs. LOAD RESISTANCE



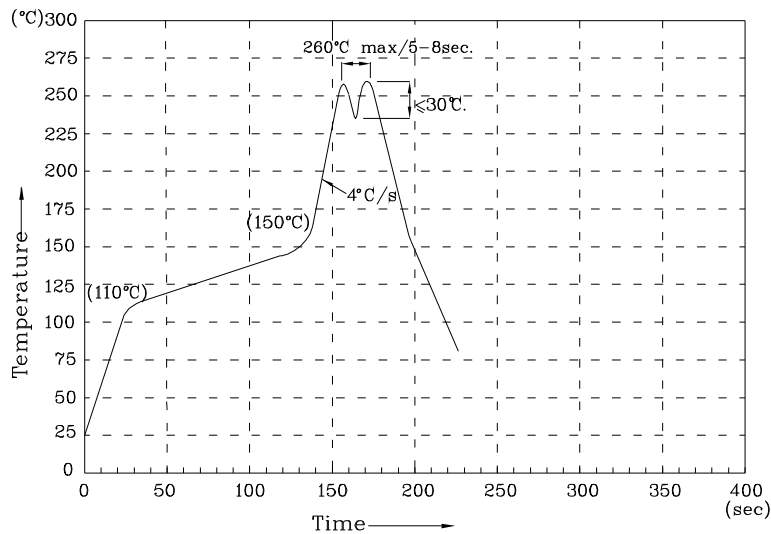
Test Circuit for Response Time



XPI-A3



Wave Soldering Profile For Lead-free Through-hole LED.



NOTE:

- 1.Recommend the wave temperature 245°C~260°C.The maximum soldering temperature should be less than 260°C.
- 2.Do not apply stress on epoxy resins when temperature is over 85 degree°C.
- 3.The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
- 4.No more than once.