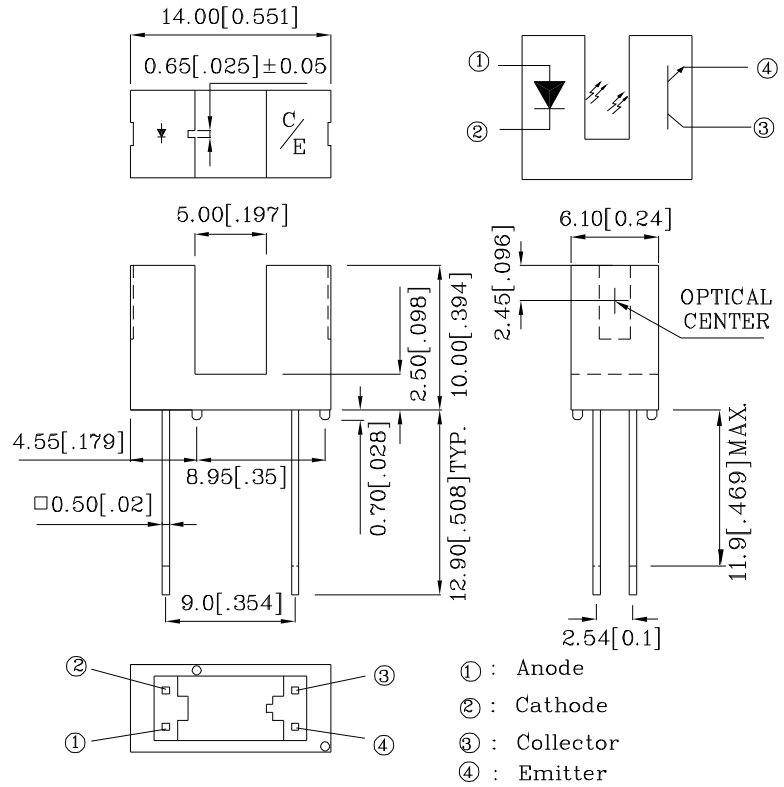


**\*Features**

- 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.

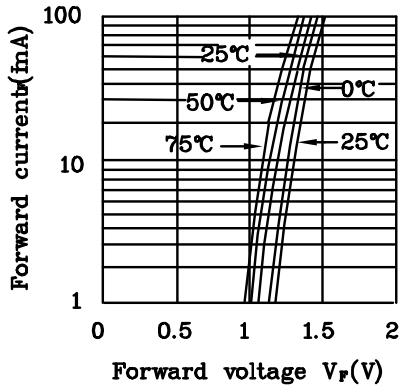
**Absolute Maximum Ratings (TA=25°C)**

Parameter		Symbol	Rating	Unit
Input	Forward current	IF	50	mA
	Reverse voltage	VR	6	V
	Power dissipation	Pd	75	mW
	Peak Forward Current (Pulse Width ≤ 100uS, Duty Cycle =1%)	IFP	1	A
Output	Collector-emitter voltage	VCEO	35	V
	Emitter-collector voltage	VECO	6	V
	Collector current	IC	20	mA
	Collector power dissipation	PC	75	mW
Operating temperature		Topr	-25~+85	°C
Storage temperature		Tstg	-40~+100	°C
Soldering temperature (1/16 inch from body for 5 seconds)		Tsol	260	°C

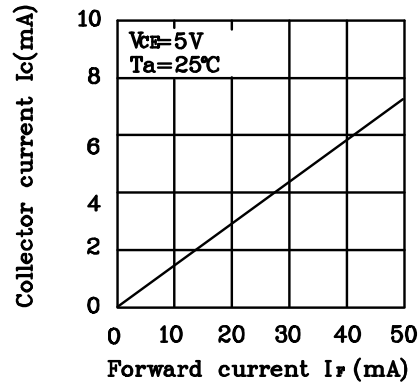
**Electrical-optical Characteristics at  $T_A=25^\circ\text{C}$**

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit	
Input	Forward voltage	$V_F$	$I_F=20\text{mA}$	1.0	1.2	1.5	V	
	Reverse current	$I_R$	$V_R=6\text{V}$	-	-	10	$\mu\text{A}$	
	Peak Wavelength	$\lambda_P$	$I_F=20\text{mA}$	-	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	$V_{CE}=5\text{V}$ $I_F=20\text{mA}$	-	14	-	%
	Response Time	Rise Time	$t_r$	$V_{CE}=2\text{V}$ $I_C=2\text{mA}$ $R_L=100\Omega$	-	5	25	$\mu\text{Sec}$
		Fall Time	$t_f$		-	4	20	$\mu\text{Sec}$

**Fig.1 FORWARD CURRENT Vs. FORWARD VOLTAGE**



**Fig.2 COLLECTOR CURRENT Vs. FORWARD CURRENT**



**Fig.3 COLLECTOR CURRENT Vs. COLLECTOR-EMITTER VOLTAGE**

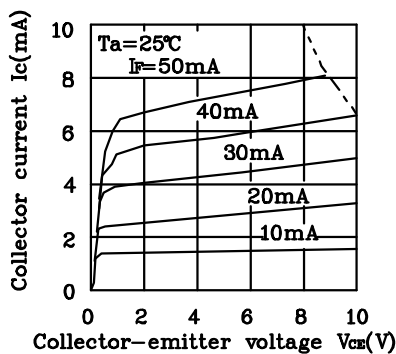


Fig.4 Collector Current vs. Ambient Temperature

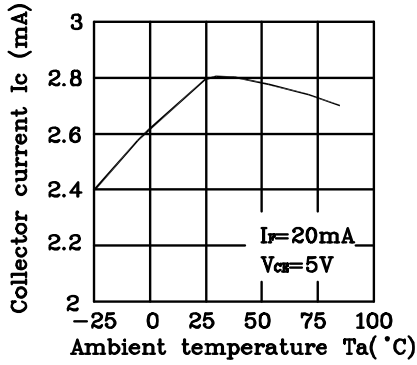


Fig.5 Collector-emitter Saturation Voltage vs. Ambient Temperature

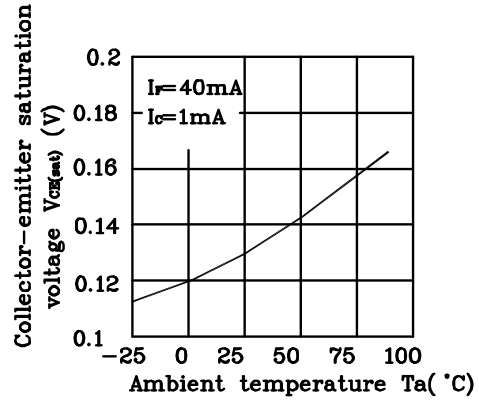


Fig.6 Relative Collector Current vs. Shield Distance(1)

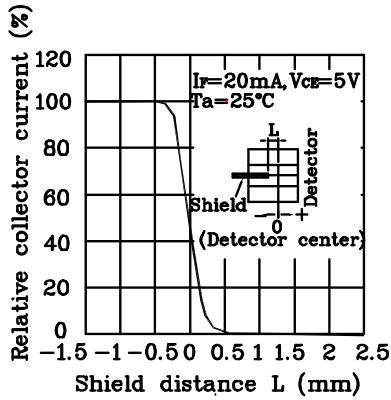


Fig.7 Relative Collector Current vs. Shield Distance(2)

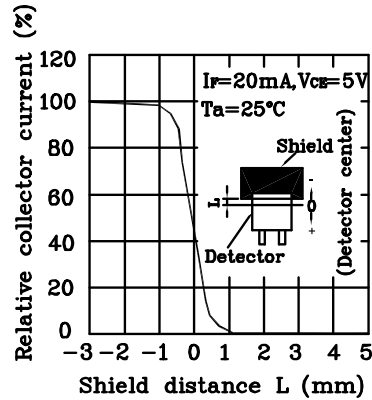
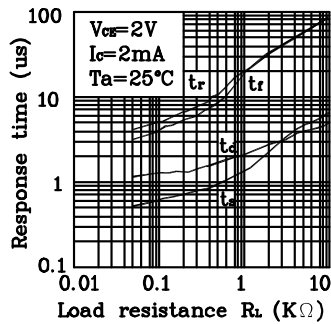
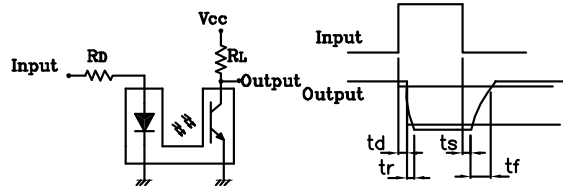


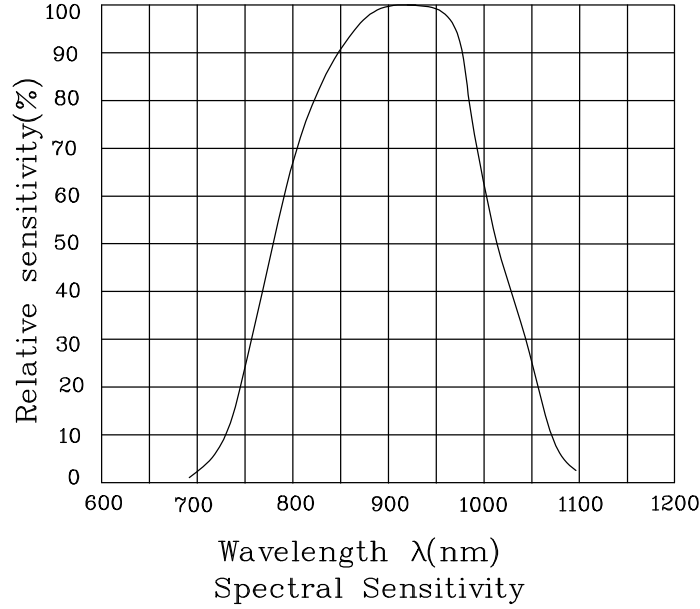
Fig.8 Response Time vs. Load Resistance



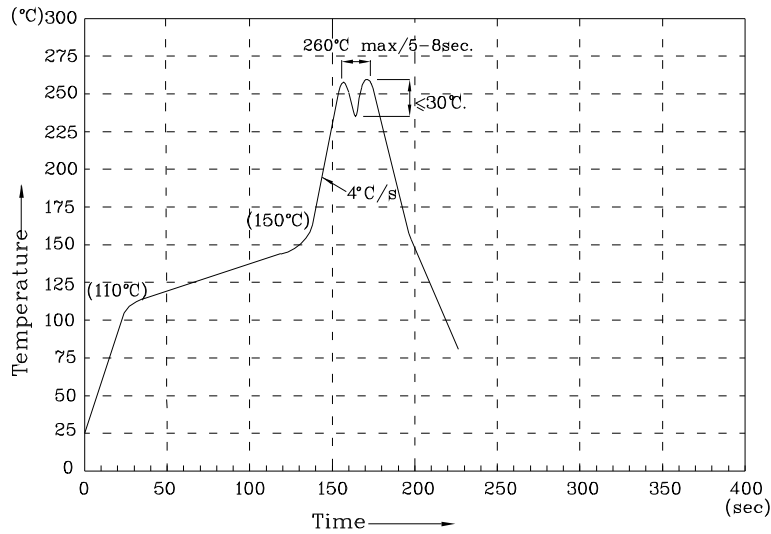
Test Circuit for Response Time



XPI-A6



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.