

Part Number: KTIR0611S

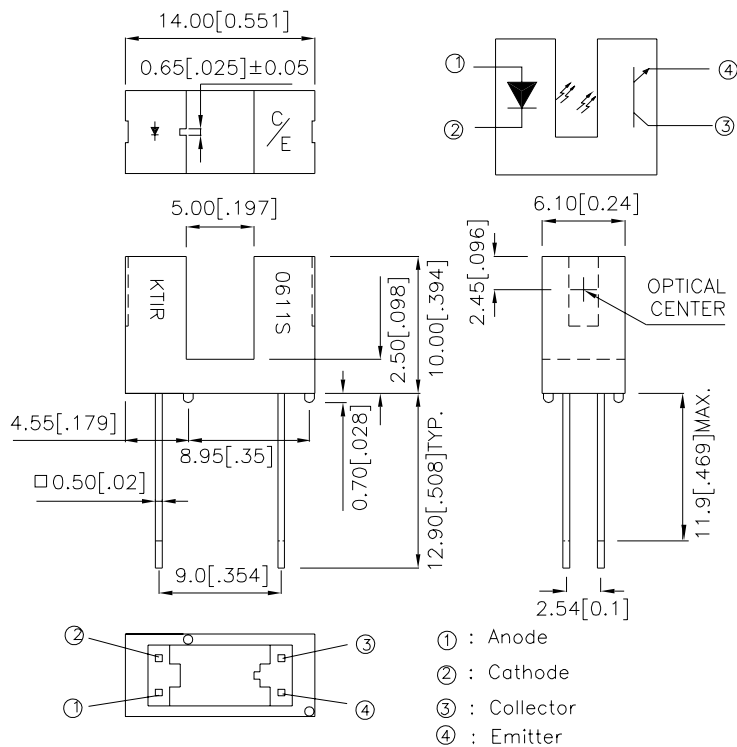
Package Dimensions

Features

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

Applications

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



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

***Absolute Maximum Ratings(Ta=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



*Electro-optical Characteristics(Ta=25°C)

Parameter			Symbol	Conditions	Min.	TYP.	Max.	Unit
Input	Forward Voltage		V _F	I _F =20mA	1.0	1.2	1.5	V
	Reverse Current		I _R	V _R =6V	-	-	10	μA
	Peak Wavelength		λ _P	I _F =20mA	-	940	-	nm
Output	Collector dark current		I _{CEO}	V _{CE} =20V	-	-	100	nA
Transfer charact- eristics	Collector-emitter saturation voltage		V _{CE (SAT)}	I _C =1mA I _F =40mA	-	-	0.4	V
	Current transfer ratio		CTR	V _{CE} =5V I _F =20mA	-	14	-	%
	Response time	Rise time	tr	V _{CE} =2V I _C =2mA	-	5	25	μsec
		Fall time	tf	R _L =100Ω	-	4	20	μsec

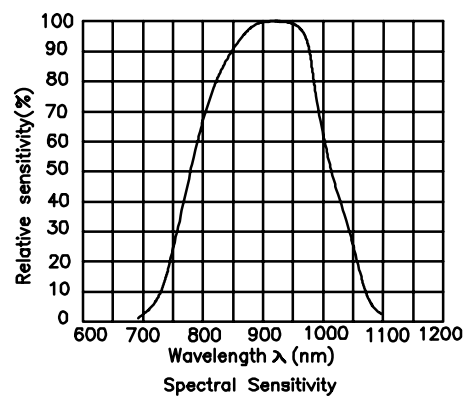


Fig. 1 Forward Current vs. Forward Voltage

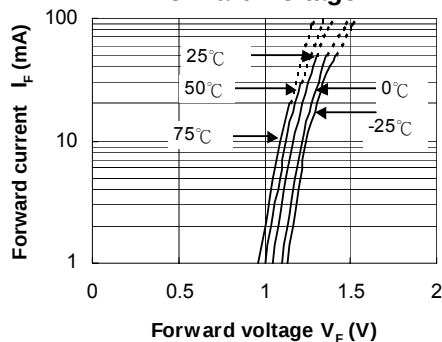


Fig. 2 Collector Current vs. Forward Current

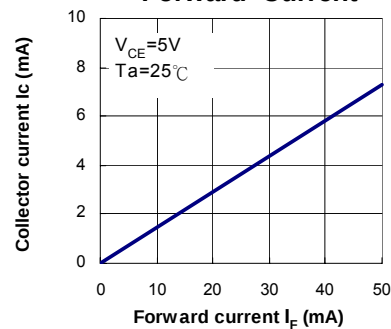


Fig. 3 Collector Current vs. Collector-emitter Voltage

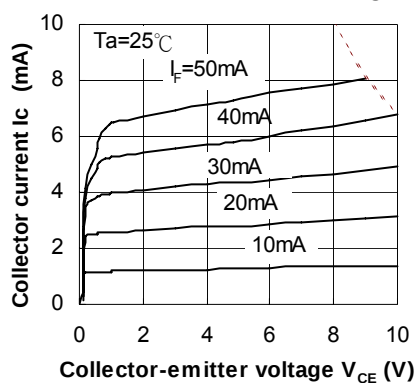


Fig. 4 Collector Current vs. Ambient Temperature

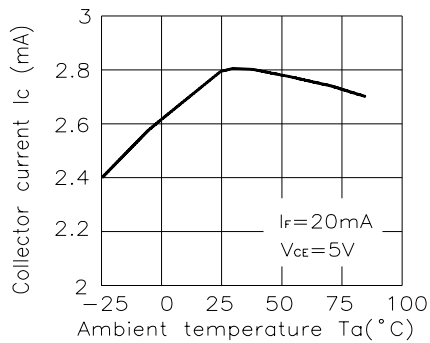


Fig.5 Collector-emitter Saturation Voltage vs. Ambient Temperature

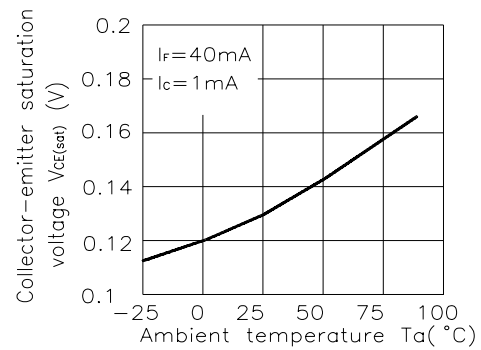


Fig.6 Relative Collector Current vs. Shield Distance (1)

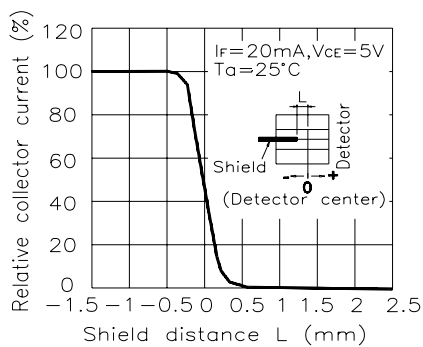


Fig.7 Relative Collector Current vs. Shield Distance (2)

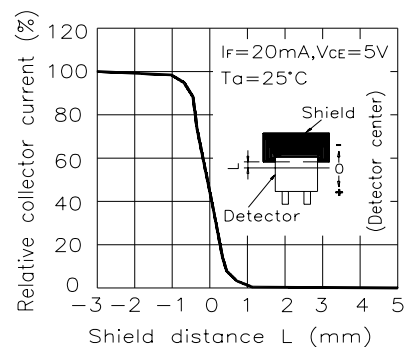
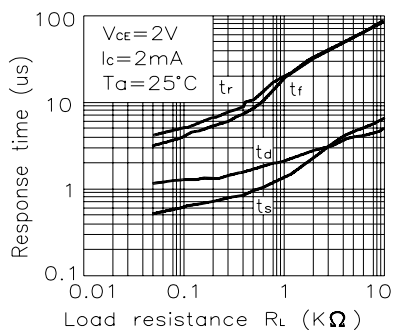


Fig.8 Response Time vs Load Resistance



Test Circuit for Response Time

