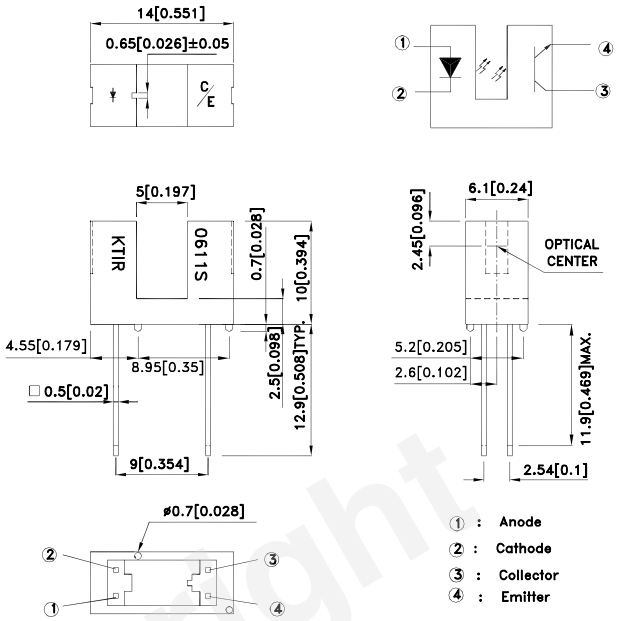
Part Number: KTIR0611S

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 ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. The specifications, characteristics and technical data described in the data-sheet are subject to change without prior 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	Pd	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		Topr	-25~+85	ºC
Storage temperature		Tstg	-40~+100	ºC
soldering temperature (1/16 inch from body for 5 seconds)		Tsol	260	ºC

*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		λP	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	2	14	-	%
	Response time	Rise time	tr	V_{CE}=2V I_C=2mA R_L=100Ω	-	5	25	μsec
		Fall time	tf		-	4	20	μsec

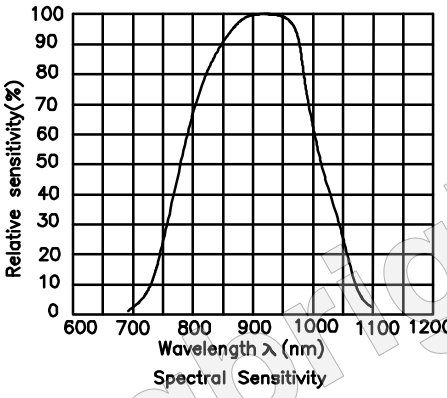


Fig. 1 Forward Current vs. Forward Voltage

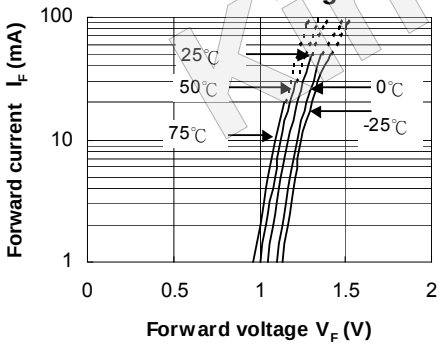


Fig. 2 Collector Current vs. Forward Current

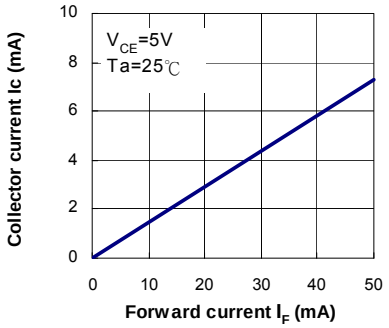


Fig. 3 Collector Current vs. Collector-emitter Voltage

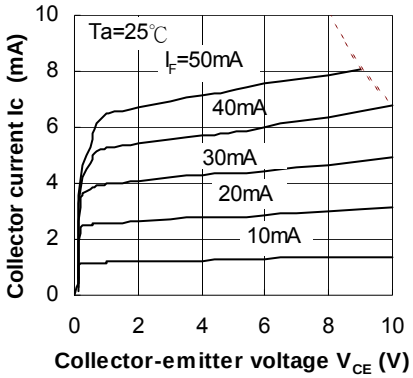


Fig. 4 Collector Current vs. Ambient Temperature

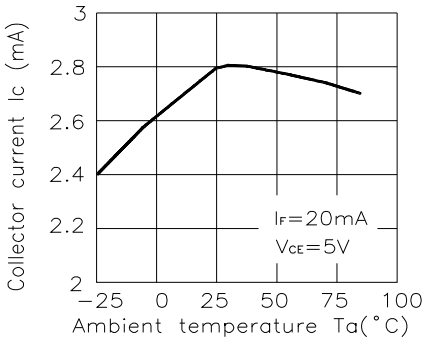


Fig.5 Collector-emitter Saturation Voltage vs.Ambient Temperature

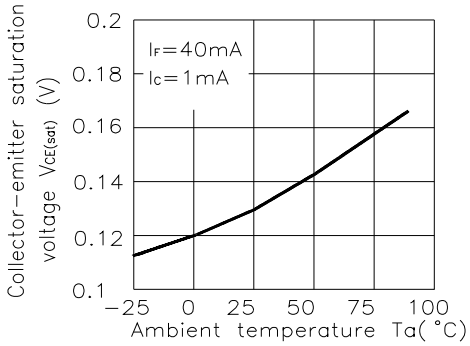


Fig.6 Relative Collector Current vs. Shield Distance (1)

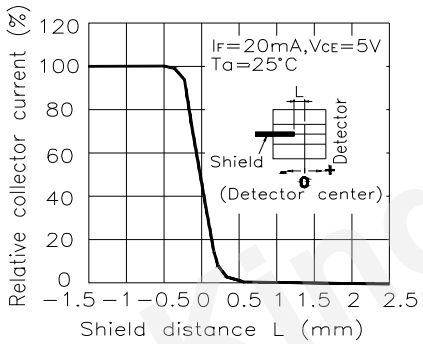


Fig.7 Relative Collector Current vs. Shield Distance (2)

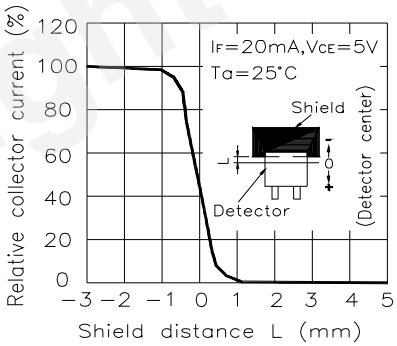
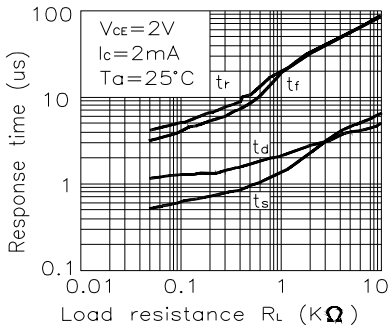
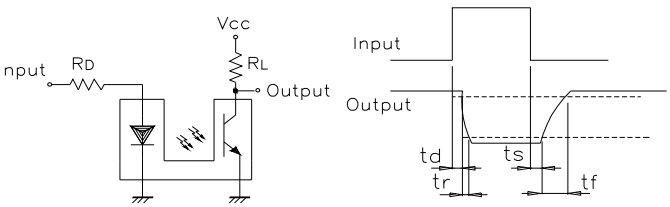


Fig.8 Response Time vs Load Resistance

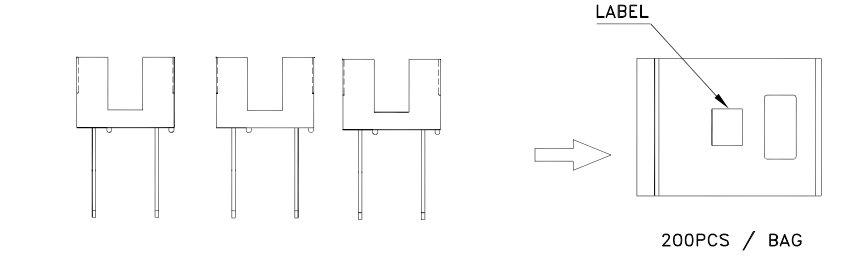


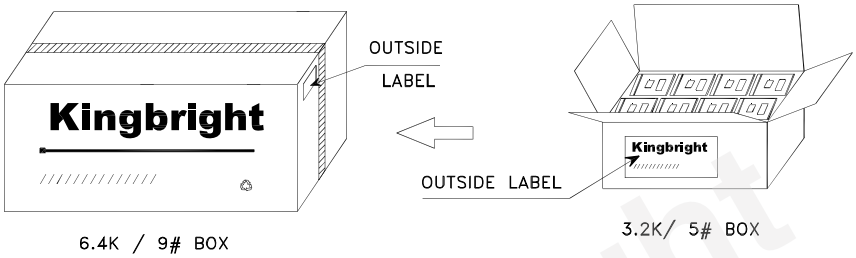
Test Circuit for Response Time



PACKING & LABEL SPECIFICATIONS

KTIR0611S





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