

Part Number: KTIR0911S

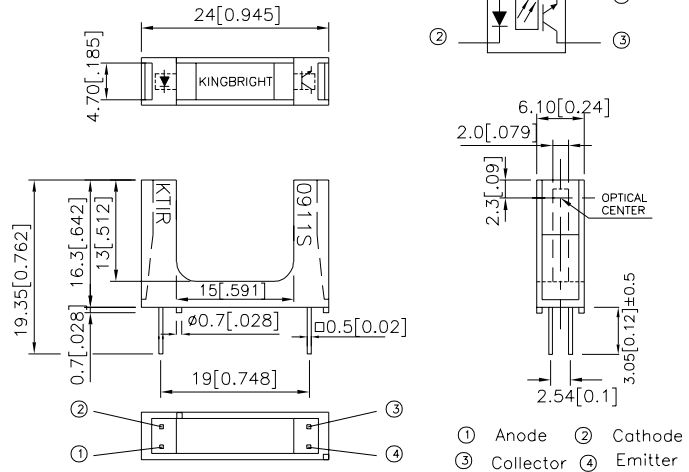
Package Dimensions

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 lead 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	75	mW
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 Emission Wavelength	λ_P	$I_F=5mA$	-	940	-	nm	
Output	Collector dark current	I_{CEO}	$V_{CE}=20V$	-	-	100	nA	
	Peak Sensitivity Wavelength	λ_P	-	-	900	-	nm	
Transfer characteristics	Collector-emitter saturation voltage	$V_{CE(SAT)}$	$I_C=1mA$ $I_F=40mA$	-	-	0.4	V	
	Current transfer ratio	CTR	$V_{CE}=5V$ $I_F=20mA$	-	9.5	-	%	
	Response time	Rise time	t_r	$V_{CE}=2V$ $I_C=2mA$ $R_L=100\Omega$	-	5	25	μs
		Fall time	t_f		-	4	20	μs

Fig.1 FORWARD CURRENT Vs. FORWARD VOLTAGE

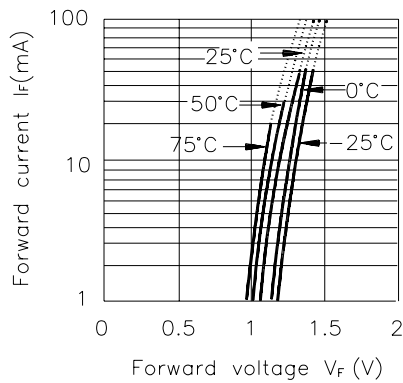


Fig.2 COLLECTOR CURRENT Vs. FORWARD CURRENT

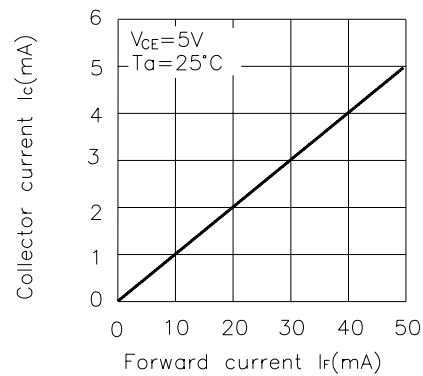


Fig.3 COLLECTOR CURRENT VS. COLLECTOR-EMITTER VOLTAGE

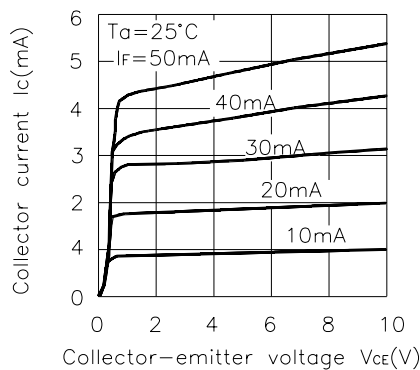


Fig.4 COLLECTOR CURRENT Vs. AMBIENT TEMPERATURE

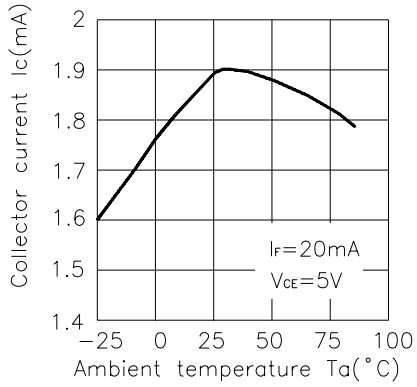


Fig.5 COLLECTOR-EMITTER SATURATION VOLTAGE Vs. AMBIENT TEMPERATURE

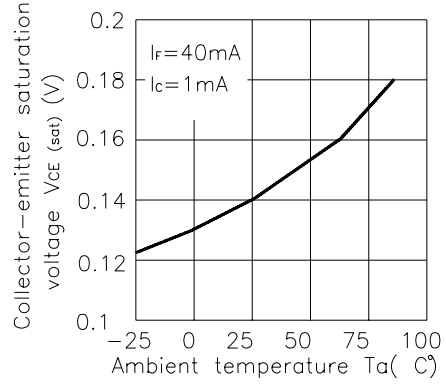


Fig.6 RELATIVE COLLECTOR CURRENT Vs. SHIELD DISTANCE (1)

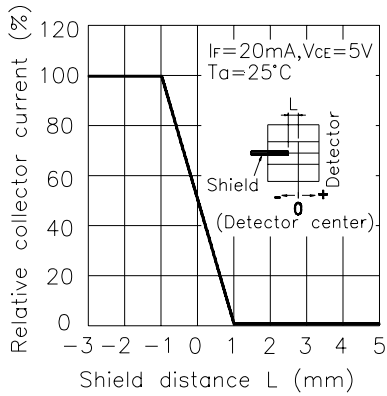


Fig.7 RELATIVE COLLECTOR CURRENT Vs. SHIELD DISTANCE (2)

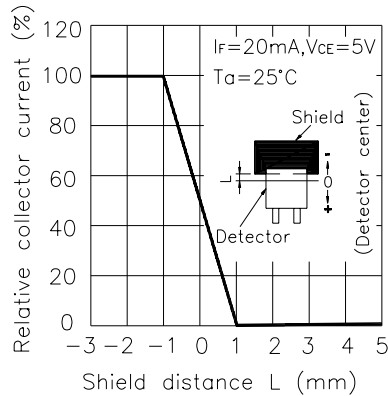
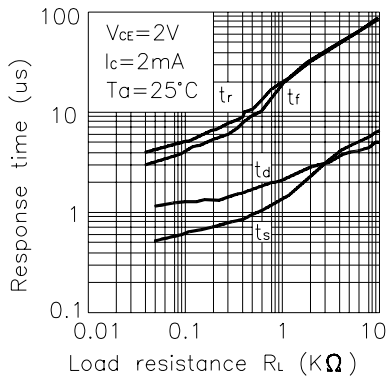
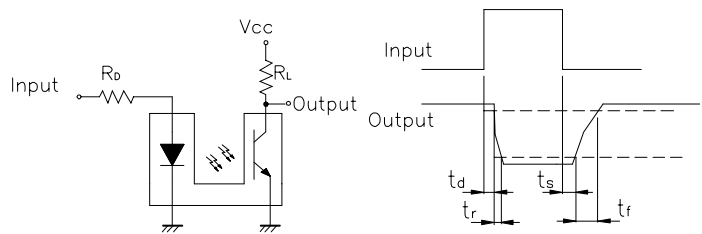


Fig.8 RESPONSE TIME Vs. LOAD RESISTANCE

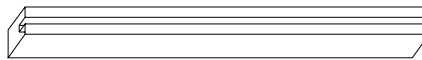
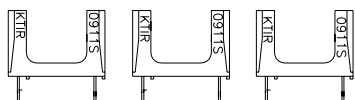


Test Circuit for Response Time

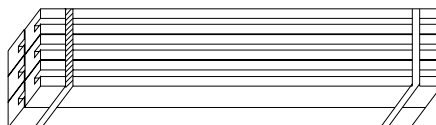


PACKING & LABEL SPECIFICATIONS

KTIR0911S



80PCS / IC TUBE



480pcs / 6pcs IC TUBE



OUTSIDE LABEL

3.84K / 10# BOX

<h1>Kingbright</h1>				
Q.C.	<table border="1"> <tr> <td style="text-align: center;">QC</td> </tr> <tr> <td style="text-align: center;">xx xx xxxx</td> </tr> <tr> <td style="text-align: center;">PASSED</td> </tr> </table>	QC	xx xx xxxx	PASSED
QC				
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TYPE NO : KTIR0911S				
QUANTITY : 480 pcs				
S/N : XX	CODE: XX			
LOT NO:  <small>XX-11P001</small>				
MADE IN CHINA	RoHS Compliant			