

Part Number: KTIR0911S

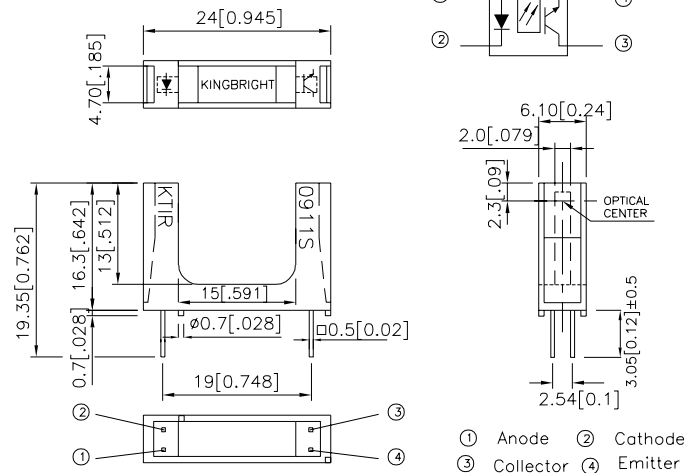
Package Dimensions

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 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	-	9.5	-	%
	Response time	Rise time	tr	V _{CE} =2V I _C =2mA	-	5	25	μs
		Fall time	tf	R _L =100Ω	-	4	20	μs

Fig.1 FORWARD CURRENT Vs. FORWARD VOLTAGE

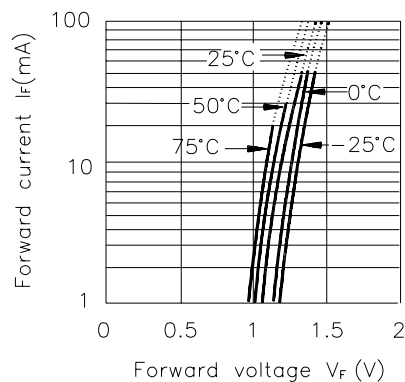


Fig.2 COLLECTOR CURRENT Vs. FORWARD CURRENT

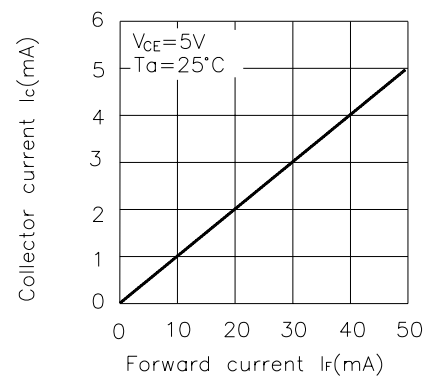


Fig.3 COLLECTOR CURRENT VS. COLLECTOR-EMITTER VOLTAGE

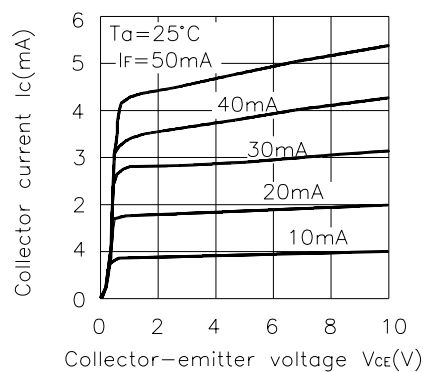


Fig.4 COLLECTOR CURRENT Vs. AMBIENT TEMPERATURE

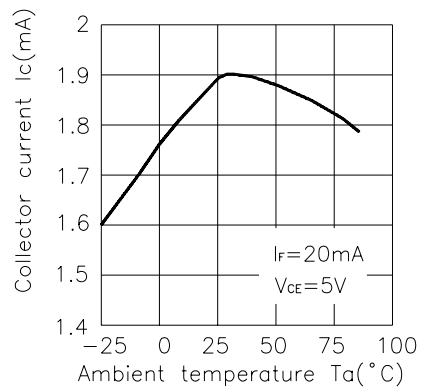


Fig.5 COLLECTOR-EMITTER SATURATION VOLTAGE Vs. AMBIENT TEMPERATURE

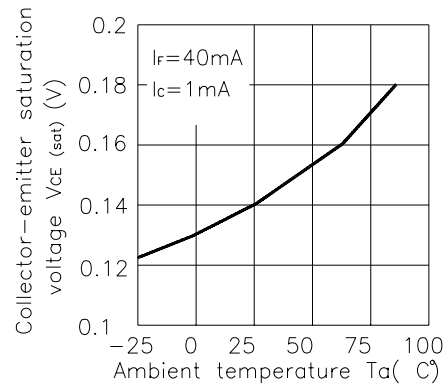


Fig.6 RELATIVE COLLECTOR CURRENT Vs. SHIELD DISTANCE (1)

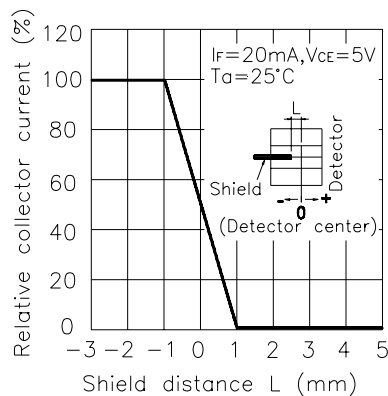


Fig.7 RELATIVE COLLECTOR CURRENT Vs. SHIELD DISTANCE (2)

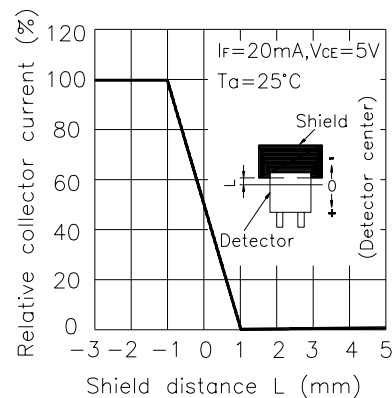
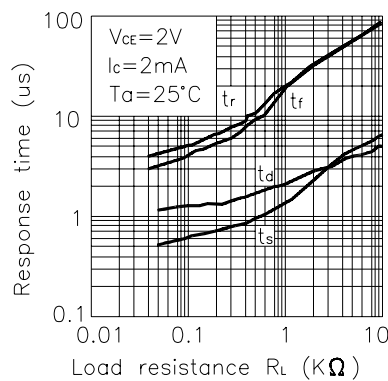
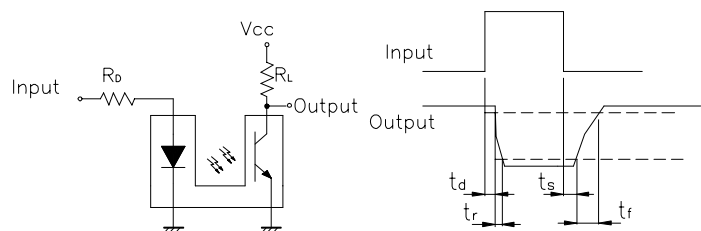


Fig.8 RESPONSE TIME Vs. LOAD RESISTANCE

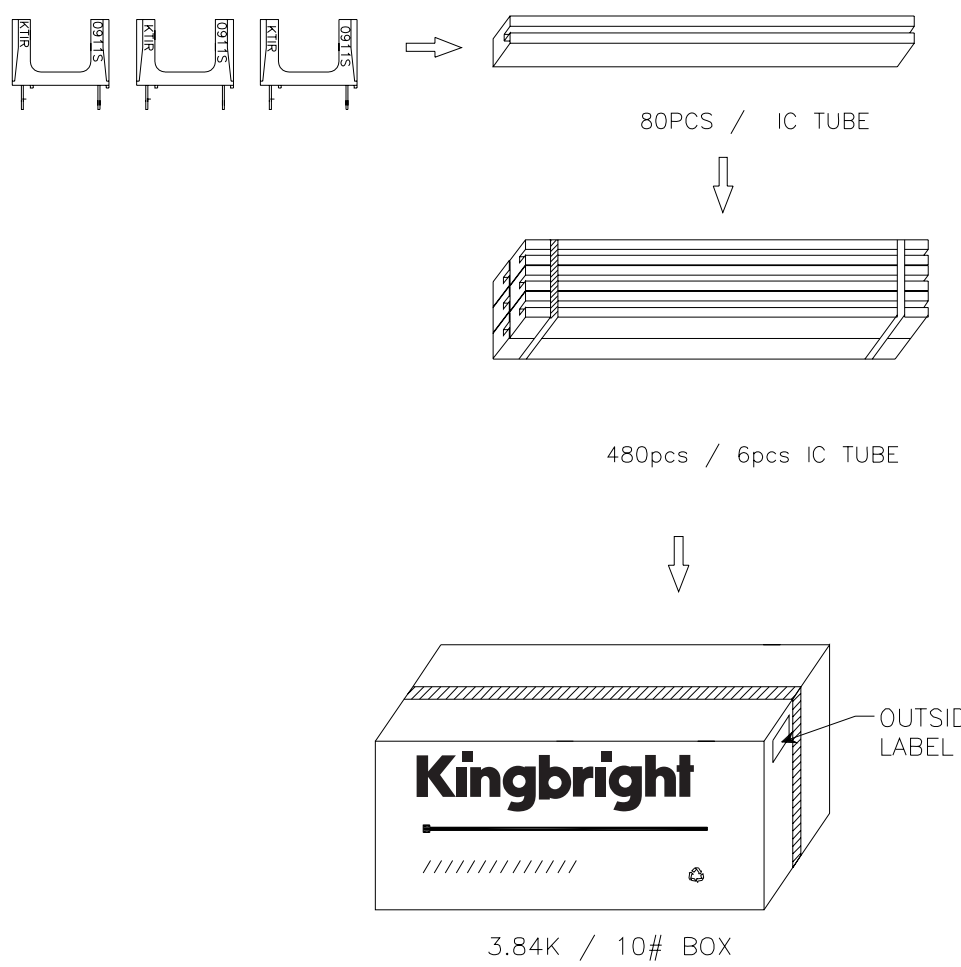


Test Circuit for Response Time



PACKING & LABEL SPECIFICATIONS

KTIR0911S



Kingbright	
Q.C.	
TYPE NO : KTIR0911S	QC xx xx xxxx PASSED
QUANTITY : 480 pcs	
S/N : XX	CODE: XX
LOT NO: 	
MADE IN CHINA	RoHS Compliant