

Part Number: KTIR0421DS

Features

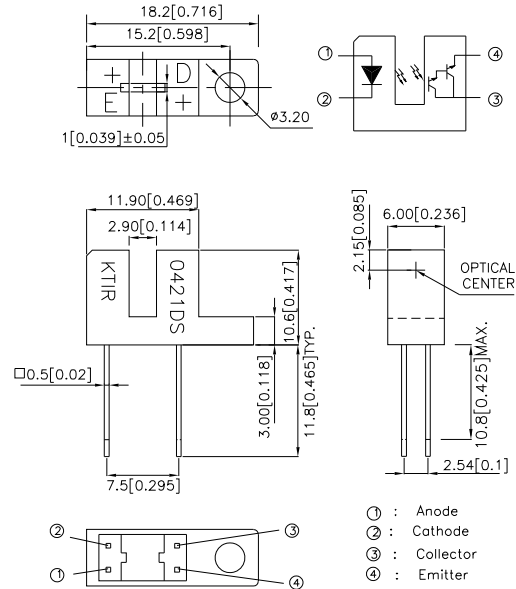
- High sensing accuracy.
- High current transfer ratio.
- Both-sides mounting type.
- RoHS Compliant.

Applications

- OA equipment, such as floppy disk drives, printers, facsimiles, etc.
- VCRs.



Package Dimensions



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. Specifications are subject to change without notice.

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	40	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

Electro-optical Characteristics (T_a=25°C)

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit	
Input	Forward voltage	V _F	I _F =20mA	1.0	1.2	1.5	V	
	Peak forward voltage	V _{FM}	I _{FM} =0.5A	—	2	3	V	
	Reverse current	I _R	V _R =6V	—	—	10	μA	
Output	Collector dark current	I _{CEO}	V _{CE} =10V, I _F =0mA	—	—	10 ⁻⁶	A	
Transfer characteristics	Current transfer ratio	CTR	V _{CE} =2V, I _F =1mA	—	650	—	%	
	Collector-emitter saturation voltage	V _{CE(sat)}	I _F =2mA, I _C =1mA	—	—	1.0	V	
	Response time	Rise time	t _r	V _{CE} =2V, I _C =10mA R _L =100Ω	—	90	400	μsec
		Fall time	t _f		—	80	300	μsec

Fig.1 Forward Current vs. Forward Voltage

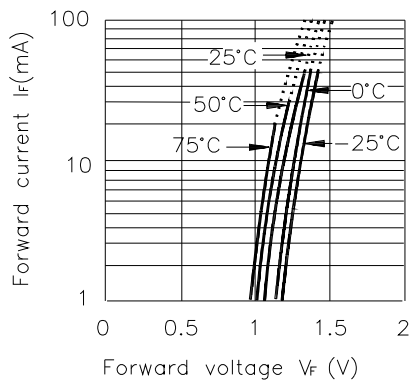


Fig.2 Collector Current vs. Forward Current

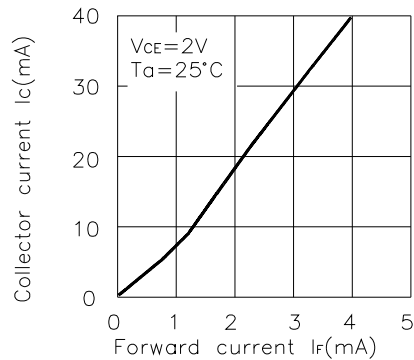


Fig.3 Collector Current vs. Collector-emitter Voltage

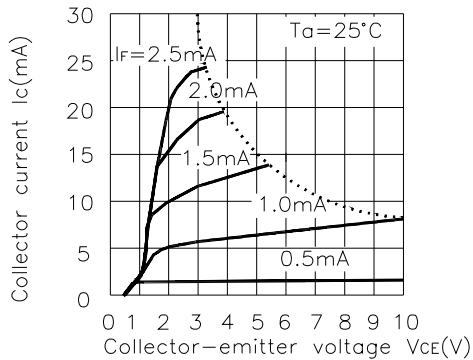


Fig.4 Collector Current vs. Ambient Temperature

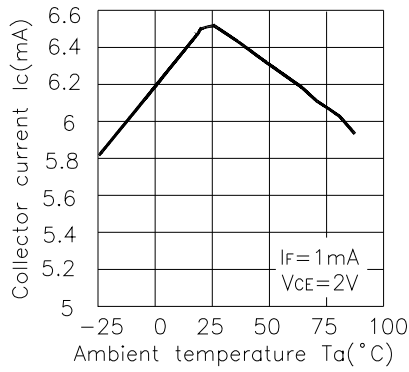


Fig.5 Collector-emitter Saturation Voltage vs. Ambient Temperature

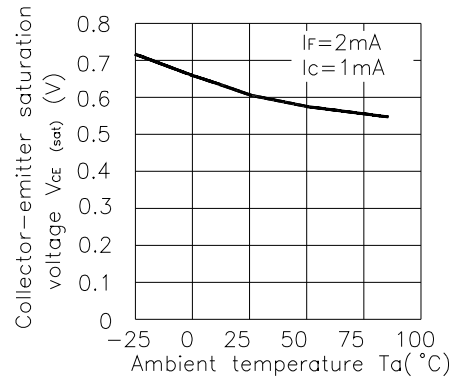


Fig.6 Relative Collector Current vs. Shield Distance(1)

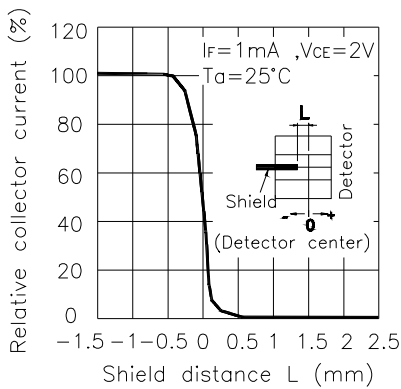


Fig.7 Relative Collector Current vs. Shield Distance(2)

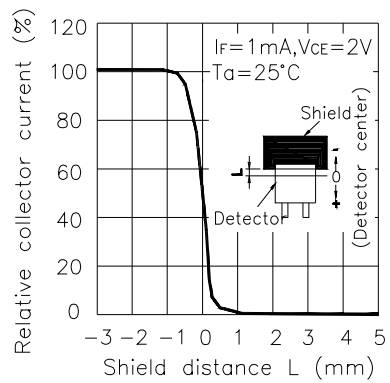
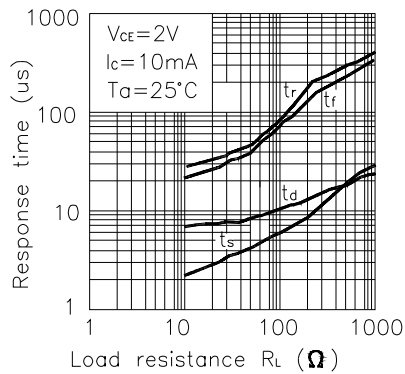
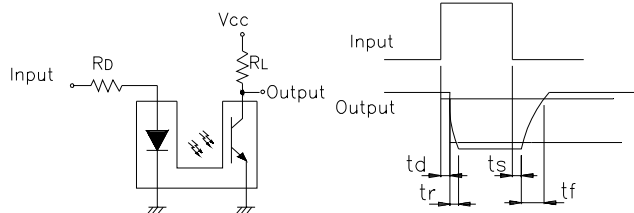


Fig.8 Response Time vs. Load Resistance



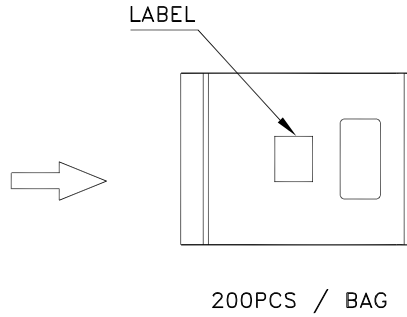
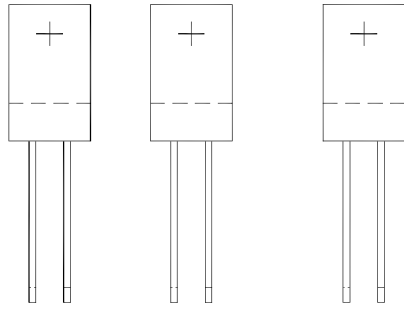
Test Circuit for Response Time



Kingbright

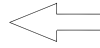
PACKING & LABEL SPECIFICATIONS

KTIR0421DS

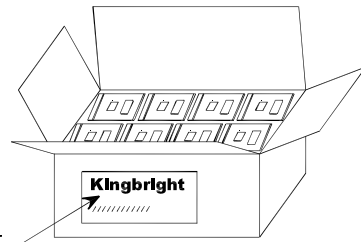


6K / 9# BOX


OUTSIDE LABEL



OUTSIDE LABEL



3K / 5# BOX

<h1>Kingbright</h1>	
P/NO: KTIR0421DS	
QTY: 200 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	