

## Photo Interrupter

# KIT3001B

### Description

The photo interrupter high-performance standard type KIT3001B combines a high-output GaAs IRED with a High sensitivity photo transistor.



### Features

- PWB direct mount type.
- 3.0mm gap.
- Snap-in mount.
- With the installation positioning boss.
- Optical axis height from the mounting surface : 18.75mm
- RoHS compliant.

### Applications

- VTR.
- DVD COMBO
- Cassette mecha.

### Absolute Maximum Ratings (T<sub>a</sub>=25°C, Unless otherwise specified)

Characteristic		Symbol	Ratings	Unit
Input LED	Power dissipation	P <sub>D</sub>	75	mW
	Forward current	I <sub>F</sub>	50	mA
	Reverse voltage	V <sub>R</sub>	5	V
	Pulse forward current *1	I <sub>FP</sub>	0.5	A
Output Detector	Collector Power dissipation	P <sub>C</sub>	75	mW
	Collector current	I <sub>C</sub>	20	mA
	C-E voltage	V <sub>CEO</sub>	30	V
	E-C voltage	V <sub>ECO</sub>	5	V
Operating temperature *2		T <sub>opr.</sub>	-25 ~ +85	°C
Storage temperature *2		T <sub>stg.</sub>	-40 ~ +100	°C
Lead Soldering temperature *4		T <sub>sol.</sub>	260	°C

\*1 : Pulse width  $t_w \leq 100 \mu s$ . Period T=10ms

\*2 : No icebound or dew

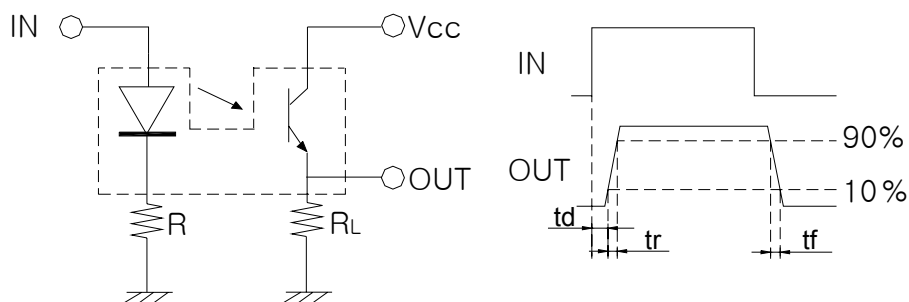
\*3 : The soldering should be 1mm away from bottom of the hole within t=5sec

The contents of this data sheet are subject to change without advance notice for the purpose of improvement.  
When using this product, would you please refer to the latest specifications.

## Electrical-Optical Characteristics (T<sub>a</sub>=25°C)

Characteristic		Symbol	Min.	Typ.	Max.	Unit	Condition
Input	Forward voltage	V <sub>F</sub>	-	1.2	1.4	V	I <sub>F</sub> =20mA
	Reverse current	I <sub>R</sub>	-	-	10	μA	V <sub>R</sub> =5V
	Peak wavelength	λ <sub>p</sub>	-	940	-	nm	I <sub>F</sub> =20mA
Output	Dark current	I <sub>CEO</sub>	-	1	100	nA	V <sub>CE</sub> =10V, L <sub>V</sub> =0Lux
Transmission Characteristics	Light current	I <sub>C</sub>	0.5	-	5	mA	I <sub>F</sub> =20mA, V <sub>CE</sub> =5V Non shading
	Leakage current	I <sub>CEOD</sub>	-	0.5	10	μA	I <sub>F</sub> =20mA, V <sub>CE</sub> =5V Shading
	C-E Saturation voltage	V <sub>CE(sat)</sub>	-	0.15	0.4	V	I <sub>F</sub> =50mA, I <sub>C</sub> =0.05mA
	Rise time	tr	-	50	-	μs	V <sub>CE</sub> =5V, I <sub>C</sub> =0.1mA R <sub>L</sub> =1kΩ
	Fall time	tf	-	50	-	μs	

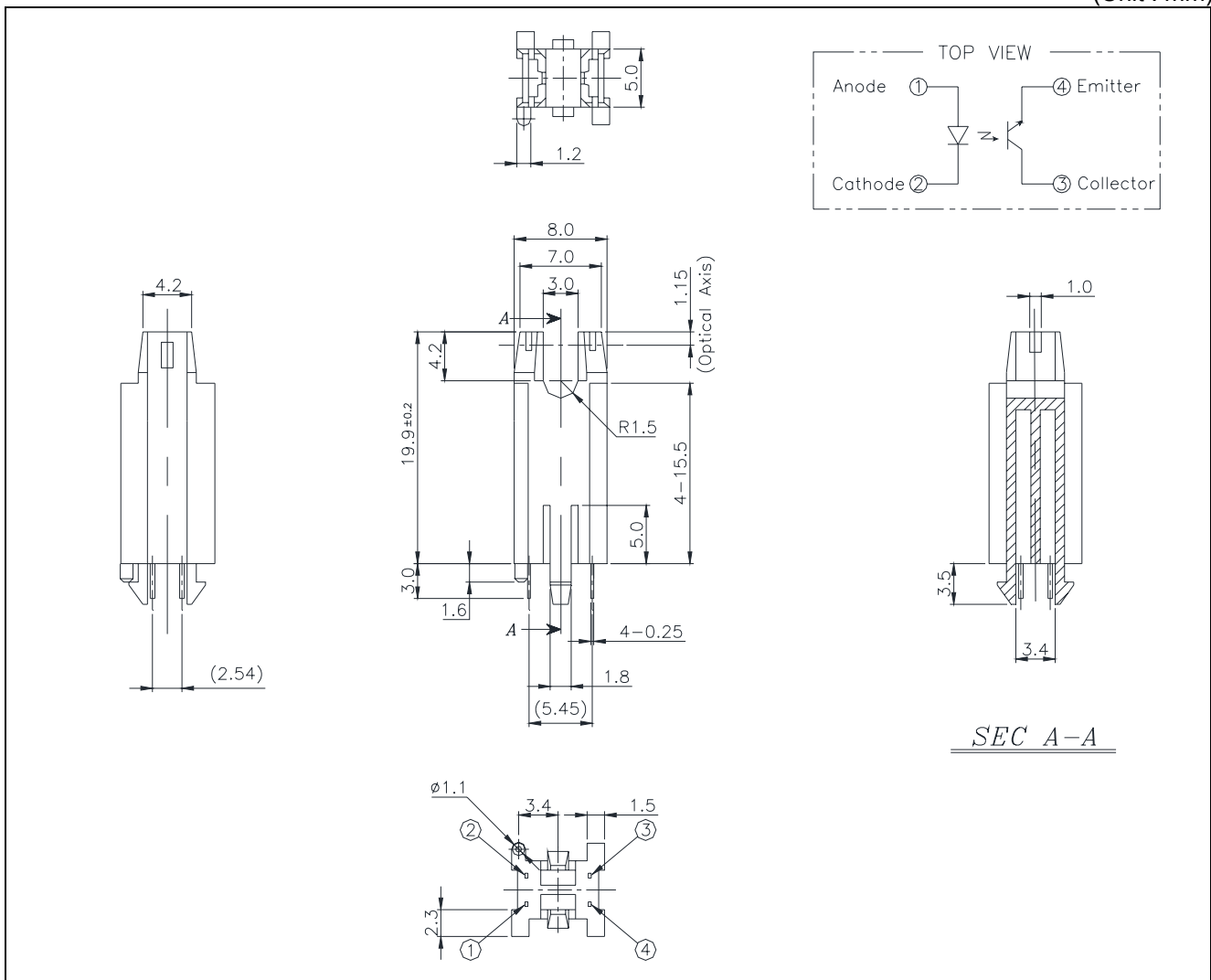
\* Circuit for measuring response time



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## Package Outline Dimensions

(Unit : mm)



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