

Photo Interrupter

KIT3001A

Description

The photo interrupter high-performance standard type KIT-3001A combines a high-output GaAs IRED with a high sensitivity phototransistor.

Features

- With the installation positioning boss.
- 3.0mm gap.
- Optical axis height from the mounting surface : 16.3mm
- Slim Type.
- RoHS compliant.



Applications

- VTR.
- Cassette mecha.

Absolute Maximum Ratings (T_a=25°C, Unless otherwise specified)

Characteristic		Symbol	Ratings	Unit
Input LED	Power dissipation	P _D	75	mW
	Forward current	I _F	50	mA
	Reverse voltage	V _R	5	V
	Pulse forward current *1	I _{FP}	0.5	A
Output Detector	Collector dissipation	P _C	75	mW
	Collector current	I _C	20	mA
	C-E voltage	V _{CEO}	30	V
	E-C voltage	V _{ECO}	5	V
Rate of decrease of temp. for forward current*2		ΔI _F / ΔT _A	-0.67	mA/°C
Rate of decrease of temp. for collect. Dissipation*2		ΔP _C / ΔT _A	-1.00	mW/°C
Operating temperature*3		T _{opr.}	-25 ~ +85	°C
Storage temperature*3		T _{stg.}	-40~ +100	°C
Soldering temperature*4		T _{sol.}	260	°C

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

*2 : $T_a \geq 25^\circ C \sim T_{opr} (max.)$

*3 : No icebound or dew

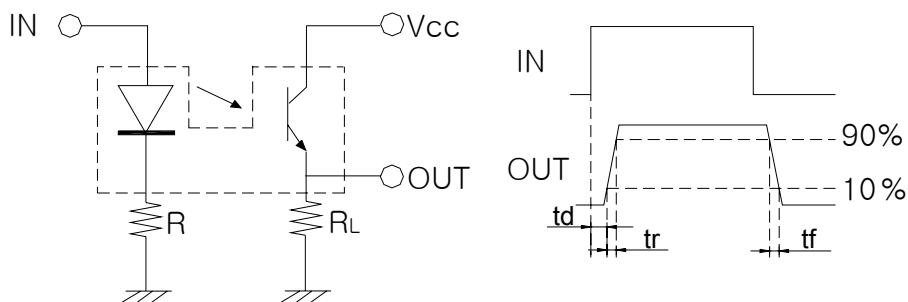
*4 : The soldering should be 1mm away from bottom of the hole within $t=5sec$

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 Characteristics (T_a=25°C)

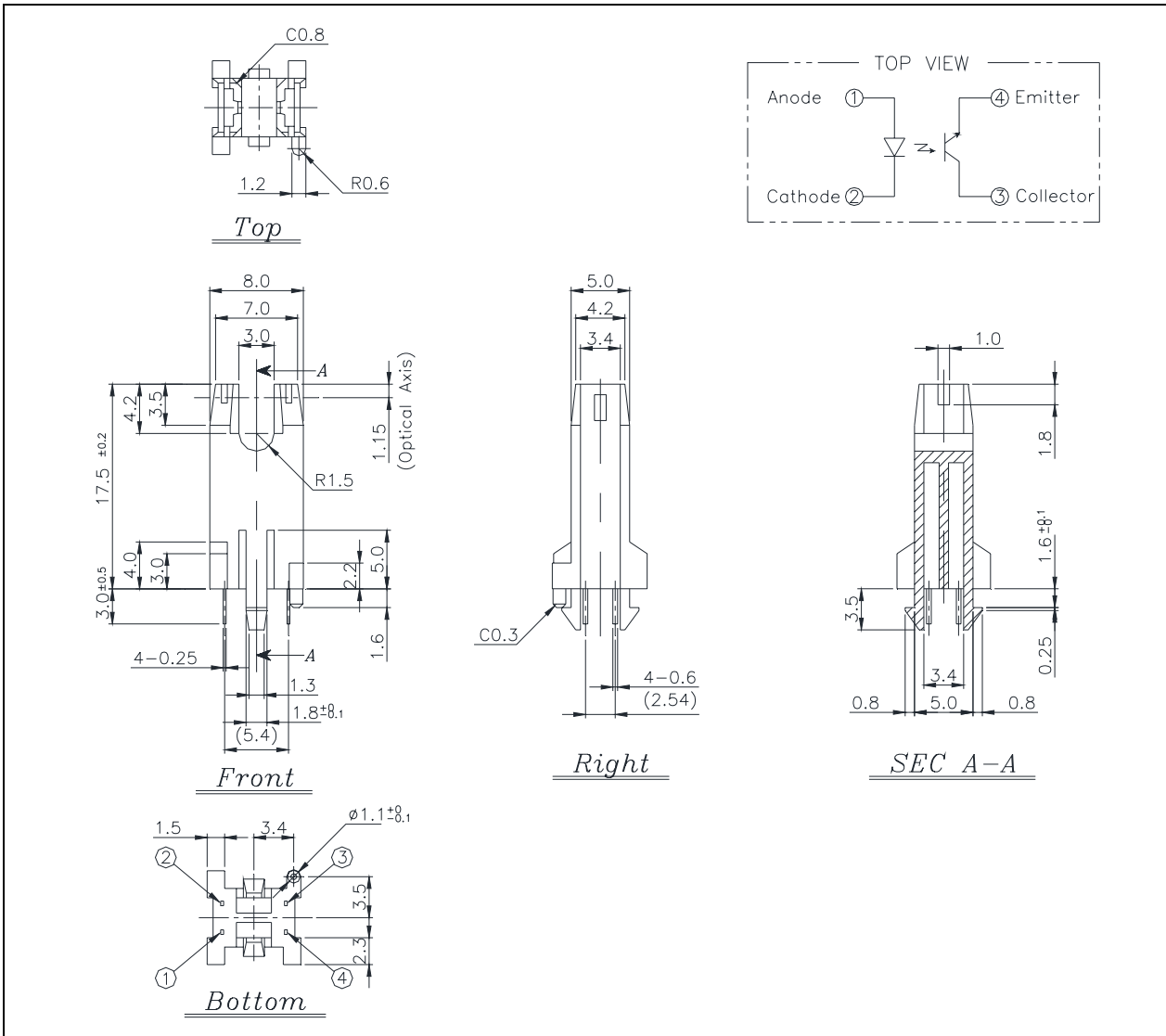
Characteristic		Symbol	Min.	Typ.	Max.	Unit	Condition
Input LED	Forward voltage	V _F	-	1.2	1.4	V	I _F =20mA
	Reverse current	I _R	-	-	10	μA	V _R =5V
	Peak wavelength	λ _p	-	940	-	nm	I _F =20mA
Output Detector	Dark current	I _{CEO}	-	1	100	nA	V _{CE} =10V, 0lx
	Peak Wavelength	λ _p	-	880	-	nm	-
Transmission Characteristics	Light current	I _L	0.5	-	5	mA	I _F =20mA, V _{CE} =5V Non shading
	Leakage current	I _{CEOD}	-	0.5	10	μA	I _F =20mA, V _{CE} =5V Shading
	C-E Saturation voltage	V _{CE(sat)}	-	0.15	0.4	V	I _F =20mA, I _C =0.05mA
	Rise time	t _r	-	50	-	μs	V _{CC} =5V, I _C =0.1mA R _L =1kΩ
	Fall time	t _f	-	50	-	μs	

* Circuit for measuring response time



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Package Outline Dimensions



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