Photo Interrupter

KIT3001A

Description

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



RoHS

Features

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

Applications

- VTR.
- Casette mecha.

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

Characteristic		Symbol	Ratings	Unit
Input LED	Power dissipation	P_D	75	㎽
	Forward current	I_F	50	㎃
	Reverse voltage	V_R	5	V
	Pulse forward current *1	I_{FP}	0.5	A
Output Detector	Collector dissipation	P_C	75	㎽
	Collector current	I_C	20	㎃
	C-E voltage	V_{CEO}	30	V
	E-C voltage	V_{ECO}	5	V
Rate of decrease of temp. for forward current *2		$\Delta I_F / \Delta T_A$	-0.67	㎃/℃
Rate of decrease of temp. for collect. Dissipation *2		$\Delta P_C / \Delta T_A$	-1.00	㎽/℃
Operating temperature *3		Topr.	-25 ~ ＋85	℃
Storage temperature *3		Tstg.	-40~ ＋100	℃
Soldering temperature *4		Tsol.	260	℃

*1 : Pulse width tw≤100㎲ period T=10㎳

*2 : Ta≥25℃ ~ Topr (max.)

*3 : No icebound or dew

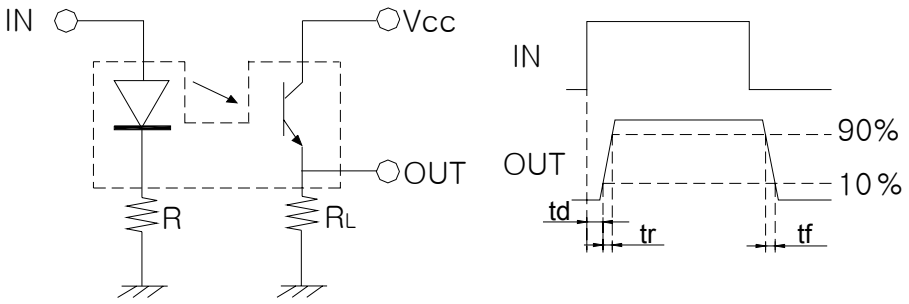
*4 : The soldering should be 1mm away from bottom of the hole within t=5sec

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℃)

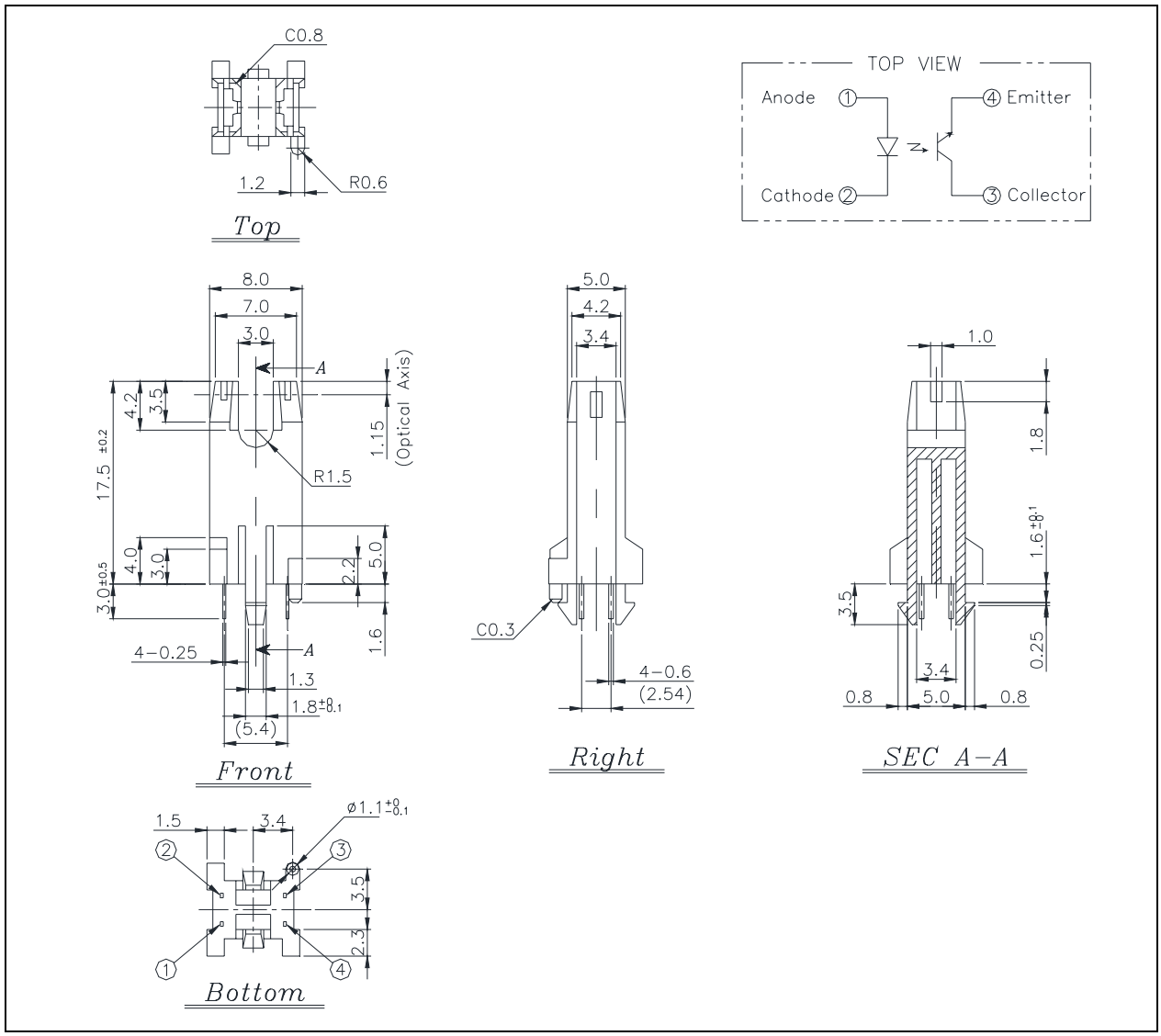
Characteristic		Simbol	Min.	Typ.	Max.	Unit	Condition
Input LED	Forward voltage	V_F	-	1.2	1.4	V	I_F=20㎃
	Reverse current	I_R	-	-	10	㎂	V_R=5V
	Peak wavelength	λ_p	-	940	-	㎚	I_F=20㎃
Output Detector	Dark current	I_{CEO}	-	1	100	㎁	V_{CE}=10V, 0lx
	Peak Wavelength	λ_p	-	880	-	㎚	-
Transmission Characteristics	Light current	IL	0.5	-	5	㎃	I_F=20㎃, V_{CE}=5V Non shading
	Leakage current	I_{CEOD}	-	0.5	10	㎂	I_F=20㎃, V_{CE}=5V Shading
	C-E Saturation voltage	V_{CE}(sat)	-	0.15	0.4	V	I_F=20㎃, Ic=0.05㎃
	Rise time	tr	-	50	-	㎲	Vcc=5V, Ic=0.1㎃ R_L=1kΩ
	Fall time	tf	-	50	-	㎲	

* Circuit for measuring response time



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Package Outline Dimensions



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