

Photo Interrupter

KIT5016A

Description

The KIT5016A photo interrupter combines high output GaAs IRED with high sensitive phototransistor.

Features

- PWB direct mount type
- GAP : 5.0mm
- RoHS compliant

Applications

- CD changers
- Reel rotation detection
- VTR
- Amusement machines

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

Characteristic		Symbol	Ratings	Unit
Input	Power Dissipation	P _D	100	mW
	Forward Current	I _F	60	mA
	Reverse Voltage	V _R	5	V
	Pulse Forward Current ^{*1}	I _{FP}	1	A
Output	Collector Dissipation	P _C	100	mW
	Collector Current	I _C	40	mA
	Collector-Emitter Voltage	V _{CEO}	30	V
	Emitter-Collector Voltage	V _{ECO}	5	V
Rate of Decrease of Temp. for Forward Current ^{*2}		$\Delta I_F / \Delta T_a$	-0.80	mA / °C
Rate of Decrease of Temp. for Collect Dissipation ^{*2}		$\Delta P_C / \Delta T_a$	-1.33	mW / °C
Operating Temperature ^{*3}		T _{opr}	-20 ~ +85	°C
Storage Temperature ^{*3}		T _{stg}	-30 ~ +85	°C
Soldering Temperature ^{*4}		T _{sol}	260	°C

*1 : Pulse width (tw) ≤ 100μs, Period (T) = 10msec.

*2 : T_a ≥ 25 °C ~ Topr(max).

*3 : No icebond or dew.

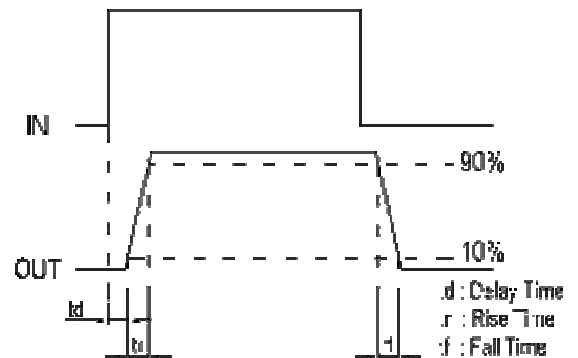
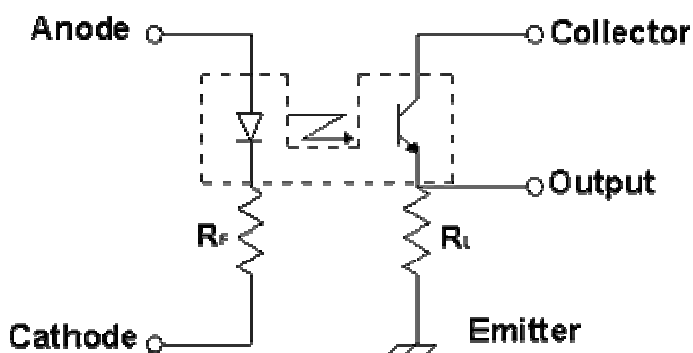
*4 : The soldering should be 1mm away from bottom of the holder t = within 5sec.

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	Test Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V _F	I _F = 20mA	-	1.2	1.4	V
	Reverse Current	I _R	V _R = 5V	-	-	10	μA
	Peak Wavelength	λ _p	I _F = 20mA	-	940	-	nm
Output	Dark Current	I _{CEO}	V _{CE} = 10V, 0 Lux	-	1	100	nA
	Peak Wavelength	λ _p		-	880	-	nm
Transfer Characteristics	Collector Current	I _C	I _F =20mA, V _{CE} =5V, Non-shading	1.0	-	5.0	mA
	Leak Current	I _{CEOD}	I _F = 20mA, V _{CE} = 5V, Shading	-	0.5	10	μA
	C-E Saturation Voltage	V _{CE(sat)}	I _F = 20mA, I _C = 0.1mA	-	0.15	0.4	V
Response Time	Rise Time	t _r	V _{CC} =5V, I _C =2mA, R _L =100Ω	-	4	-	μs
	Fall Time	t _f		-	1.2	1.4	V

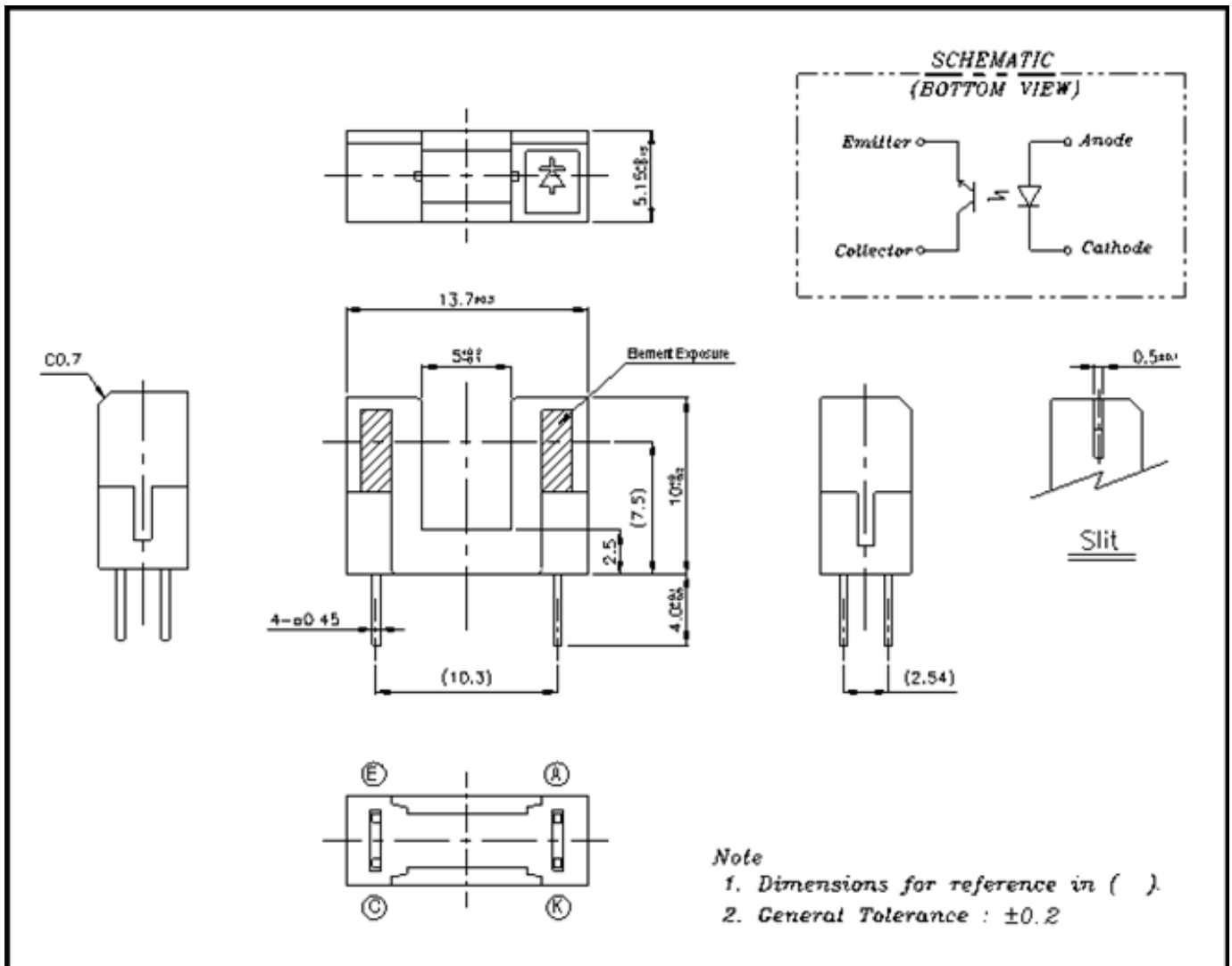
* Circuit for Measuring Response Time



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Package Outline Dimensions



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