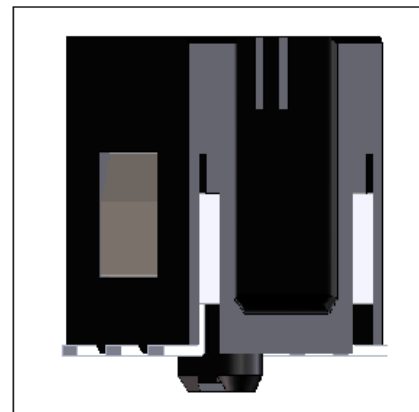


Photo Interrupter

KIT3025S

Description

The KIT3025S a compact transmission type photointerrupter, which combine high-output GaAs IRED with high sensitive dual photo transistors.



Features

- Surface mount package
- Slit : 0.3mm (Channel Distance : 0.8mm).
- Moisture Sensitive Level(MSL)3.
- GAP : 3.0mm.
- RoHS Compliance.

Applications

- Motor Control.
- Position Encoder.
- Printers.
- Ticket Vending Machines.

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	6	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}	20	V
	E-C Voltage	V _{ECO}	7	V
Operating Temperature *2		T _{opr.}	-40 ~ +105	°C
Storage Temperature *2		T _{stg.}	-40 ~ +105	°C
Soldering Temperature *3		T _{sol.}	260	°C
Reflow Soldering Temperature		T _{sol.}	260	°C

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

*2 : No icebound or dew

*3 : For 5s or less

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	Forward Voltage	V _F	-	1.2	1.4	V	I _F =20 mA
	Reverse Current	I _R	-	-	10	μA	V _R =5V
	Peak Wavelength	λ _P	-	940	-	nm	I _F =15 mA
Output	Dark Current	I _{CEO}	-	1	100	nA	V _{CE} = 20V, 0Lux
Collector Current		I _C	0.3	-	-	mA	I _F =15 mA, V _{CE} = 5V
Response Time	Rise Time	t _r	-	4	15	μs	V _{CC} =5V, I _C =0.3 mA R _L =100Ω
	Fall Time	t _f	-	5	20	μs	

- Circuit for measuring response time

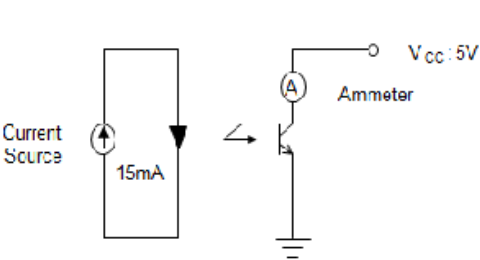


Fig 1. Test Circuit for I_C

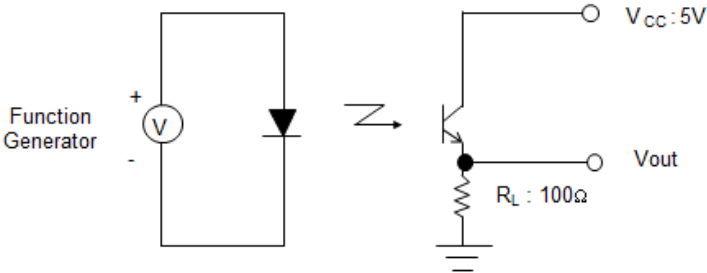


Fig 2. Test Circuit for Rise and Fall Time

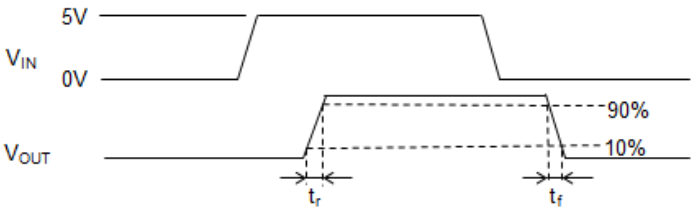
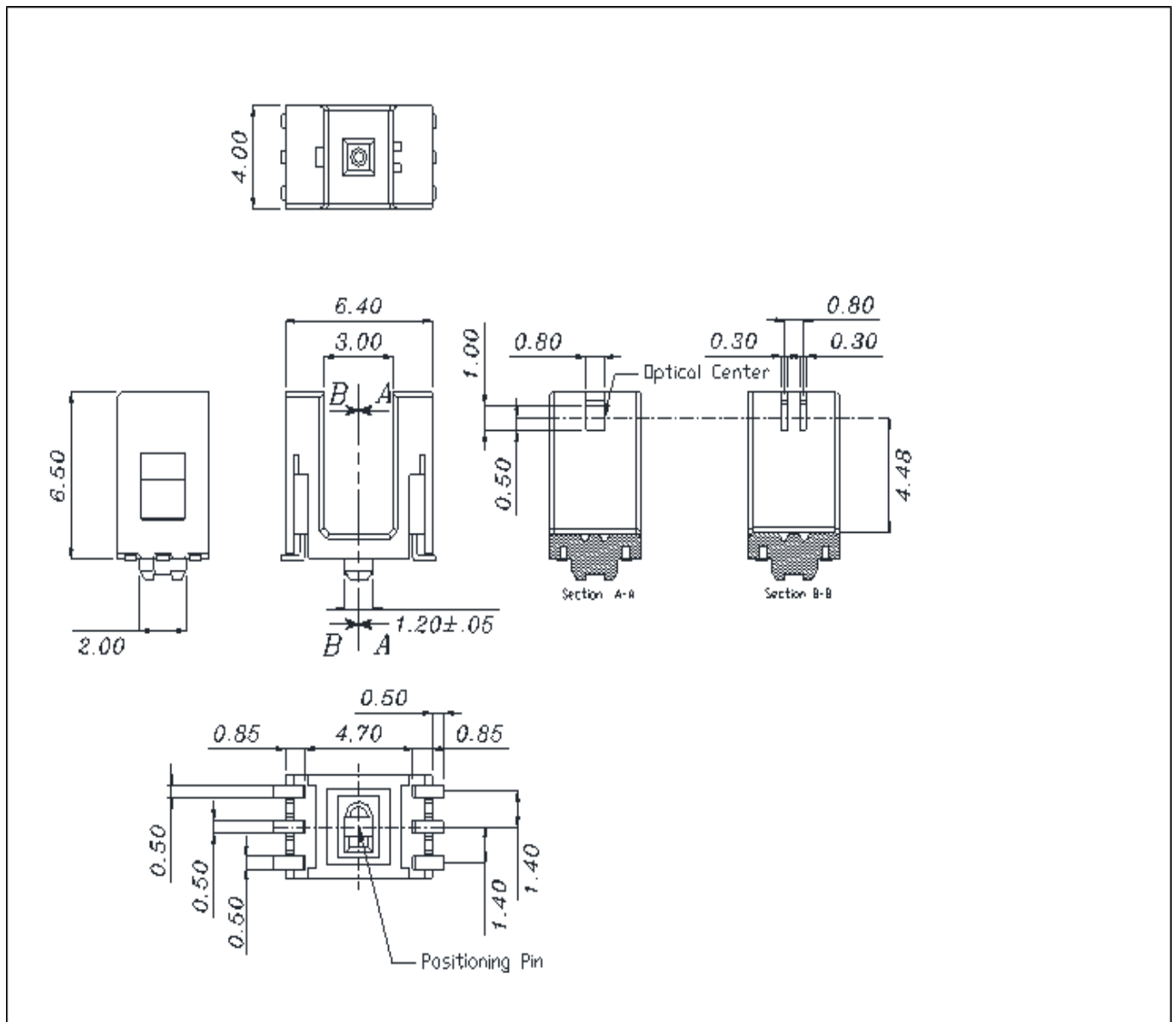


Fig 3. Definitions for Response Times

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.

Package Outline Dimensions



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.