

SPECIFICATION

FOR APPROVAL

ISSUED DATE : 11. Jun. 2021

DOCUMENT NO : 240072-08

CUSTOMER : _____

DESCRIPTION : Photo interrupter _____

MODEL NO. : KEITU005C _____

[KODENSHI KOREA CORP.]

ISSUE DEPT.			PRODUCTION		Q/A	
ISSUE	REVIEW	APPR'L	REVIEW	APPR'L	REVIEW	APPR'L
DY.Kim	SJ.Kim	CH.Cho				

[CUSTOMER APPROVAL]

ISSUE	REVIEW					

[REVISION]

NO	DATE	REVISION ITEMS	ISSUED BY	APPR'D BY
0	2021.01.07	Issued	DY.Kim	CH.Cho
A	2021.06.11	Change the packing quantity and design	DY.Kim	CH.Cho

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AUE CORP takes no responsibility for damage caused by improper use of the devices which does not meet the conditions and absolute maximum ratings to be used specified in the relevant specification sheet.

Please obey the instructions mentioned below for actual use of this device.

This device is designed for general electronic equipment.

Main use of this device are as follows;

- * Computer * OA equipment * Telecommunication equipment(Terminal)
- * Measuring instrument * Machine tool *Industrial robot
- * AV equipment * Home appliance,etc.

Please take proper steps in order to maintain reliability and safety, in case this device is used for the uses mentioned below which require high reliability.

- * Unit concerning control and safety of a vehicle (air plane,train,automobile, etc.)
- * Traffic signal * Gas leak detection breaker
- * Fire box and burglar alarm box * Other safety equipment,etc.

Please don't use for the uses mentioned below which require extremely high reliability.

- * Space equipment * Telecommunication equipment(Trunk)
- * Nuclear control equipment * Medical equipment(relating to any fatal element),etc.

1. Description

The KEITU005C is a transmissive type photointerrupter that includes infrared emitter and phototransistor detector. The sensor makes possible easy development of object detecting systems with high performance.

2. Features

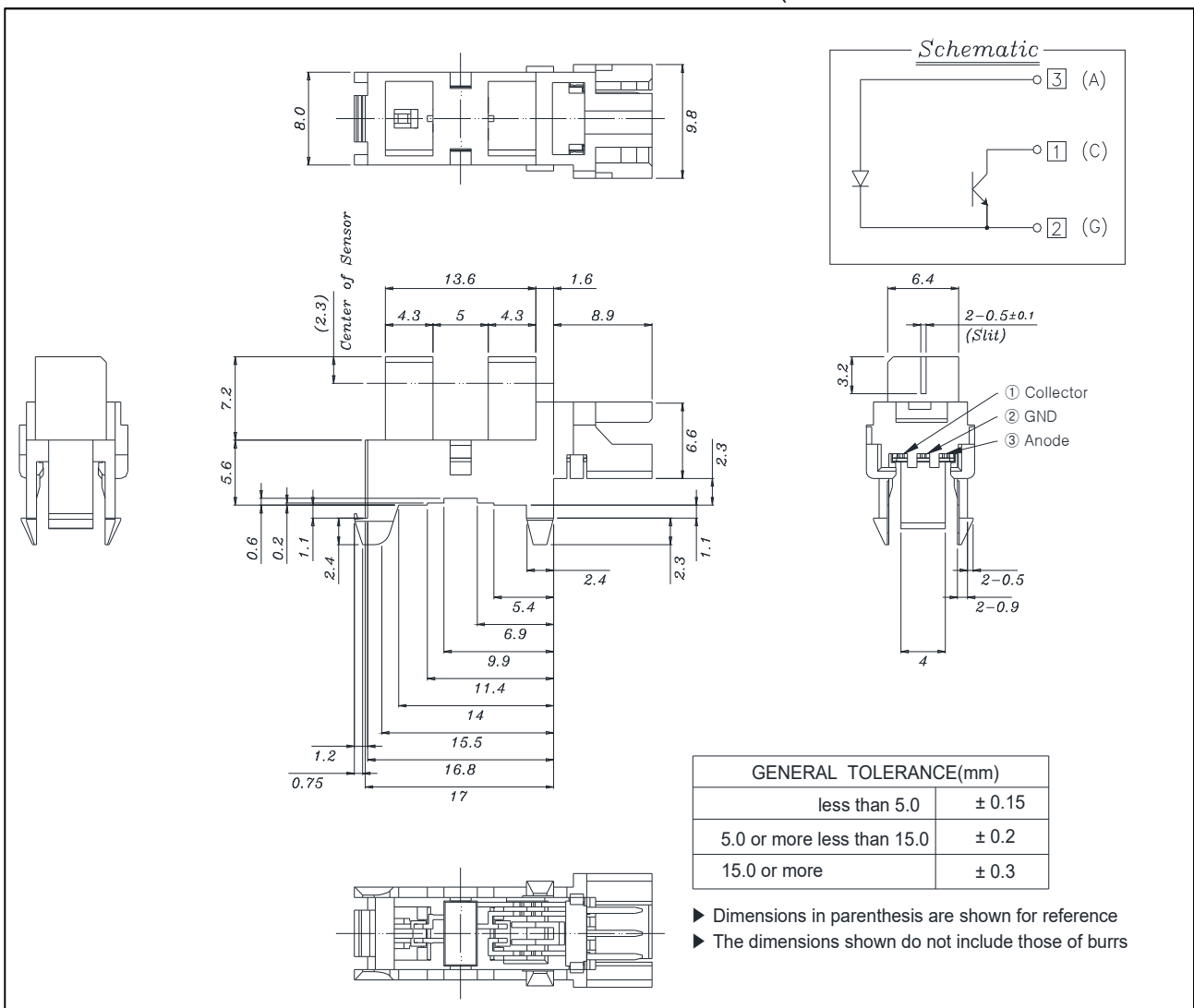
- Gap Width : 5mm
- Slit Width : 0.5mm
- Snap - in Mount (Plate Thickness = 1.0, 1.2, 1.6mm)
- RoHS Compliant
- Connector type (Tyco Electronics 173977-3 and 179228-3)

3. Applications

- Copiers
- Printers
- ATM
- Ticket Vending Machines

4. Outline Dimensions

(ALL DIMENSIONS IN MILLIMETERS)



5. Absolute Maximum Ratings

(Ta=25)

Item		Symbol	Ratings	Unit
Input	Power Dissipation	P_D	75	mW
	Forward Current	I_F	50	mA
	Reverse Voltage	V_R	5	V
	Pulse Forward Current *1	I_{FP}	1	A
Output	Collector Dissipation	P_C	75	mW
	Collector Current	I_C	20	mA
	Collector-Emitter Voltage	V_{CEO}	35	V
	Emitter-Collector Voltage	V_{ECO}	6	V
Operating Temperature *2		T_{opr}	-30 ~ +95	
Storage Temperature *2		T_{stg}	-40 ~ +100	

* 1. Pulse width (tw) 100 μ s, Period (T) = 10msec.

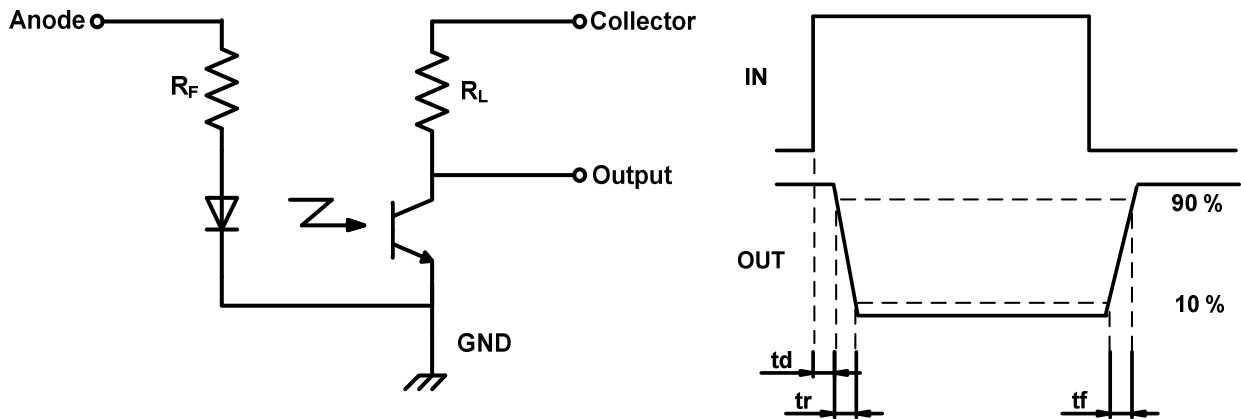
* 2. No icebond or dew.

6. Electro-Optical Characteristics

(Ta=25)

Item	Symbol	Min	Typ	Max	Unit	Conditions	
Input	Forward Voltage	V_F	-	1.2	1.4	V	$I_F = 20mA$
	Peak Forward Voltage	V_{FP}	-	2	3	V	$I_{FP} = 0.5A$
	Reverse Current	I_R	-	-	5	μA	$V_R = 3V$
	Peak Wavelength	λ_p	-	940	-	nm	$I_F = 20mA$
Output	Dark Current	I_{CEO}	-	-	100	nA	$V_{CE} = 20V, 0 Lux$
Collector Current		I_C	0.5	-	10	mA	$I_F=20mA, V_{CE}=5V, Non-shading$
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	-	-	0.4	V	$I_F = 40mA, I_C = 0.5mA$
Time	Rise Time	t_r	-	4	15	μs	$V_{CC}=2V, I_C=2mA, R_L=100\Omega$
	Fall Time	t_f	-	5	20	μs	

(Test Circuit for Response Time)



7. Quality Assurance Inspection

7-1. Inspection Form

KS A ISO 2859, Normal Inspection, Single sampling inspection.

7-2. Inspected Items and Standards

Item	Class	Judgement factor	AQL
Collector Current (I_C) Dark Current (I_{CEO})	Major	Satisfies the 6th item of the Electro-Optical Characteristics.	0.65%
Exterior (Crack, Chip, Dirt, etc.)	Minor	Those that effect the 6th item of the Electro-Optical Characteristics are not good.	0.65%

8. Cautions in Usage

- 8-1. Store product where there is no exterior force causing product to be deformed or change in quality.
- 8-2. Store and use where there is no hydrogen sulfide gas etc, causing corrosion.
- 8-3. Use active area where there is no direct light. Sunlight and tungsten lamp light.
- 8-4. Do not allow dirt or dust to fill in the slit part.
- 8-5. Design the gobo so that it covers the slit.
- 8-6. Take into consideration the drop in the emitting diode's output on continuous use.
- 8-7. Use ethyl alcohol, methyl alcohol, iso-propylene alcohol for cleansing and do not place product in the mentioned three alcohols for more than threeminutes.
Be sure that there is no flux on the active area the emitting area or it may cause the light quantity to reduce.

9. Guarantee Period and Scope

9-1. Period of Guarantee

1 year after delivery to designated place.

9-2. Scope

Replacement of products will be done, if any problems lie in our company's products.
However, we are not liable for your damage by lack of caution.

10. Others

10-1. This product is not designed against radiative rays, electro-magnetic waves or rays that have heavily charged particles.

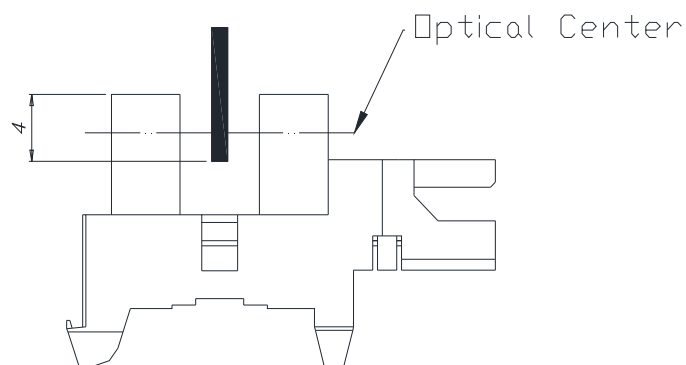
10-2. Synthetic resin is used in the package.

10-3. Electricity is used for input and output.

10-4. If any doubts concerning this specification will be discussed and solved by both parties concerned.

10-5 Opaque board shall be installed at place 4mm or more from the top of elements.

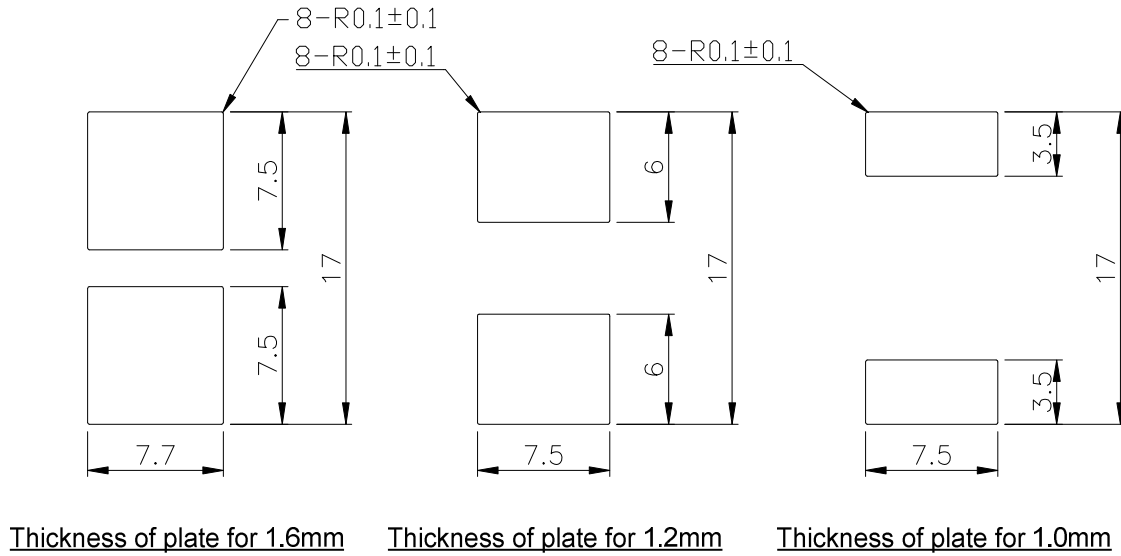
(Example)



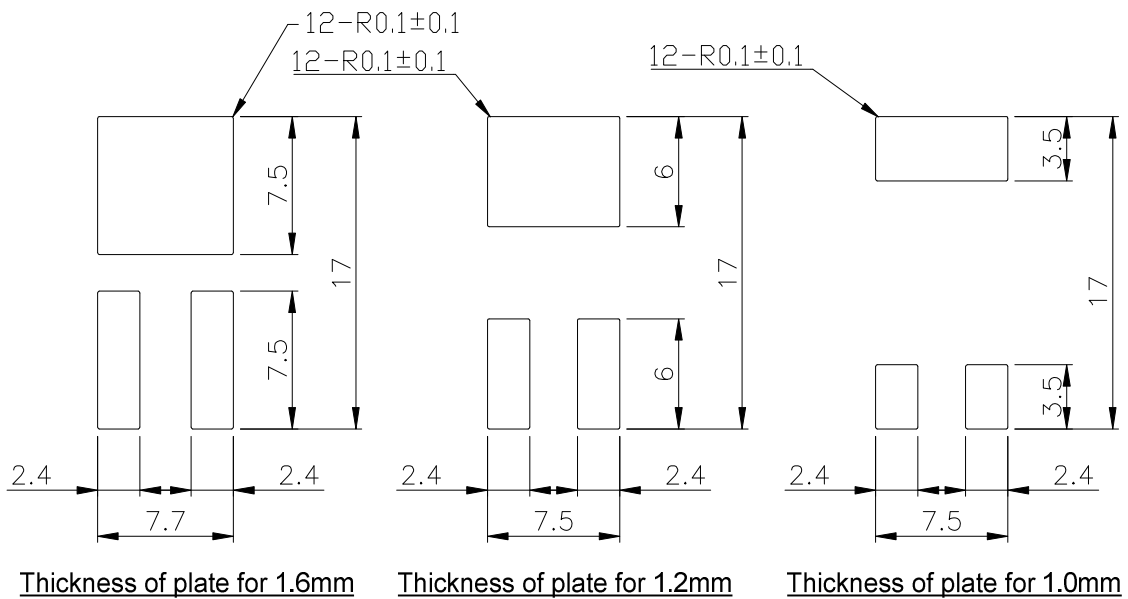
Recommended Installation Hole drawing

1. We recommended to fix KEITU005C at punching side on the fixing plate(metal plate).
2. Please decide the final dimensions at your side after confirmation by the actual applications.
Because mounting efficiency and mounted stabilization are dependent on mounting plate corner-R and punched state.
3. Tolerance shall be $\pm 0.1\text{mm}$

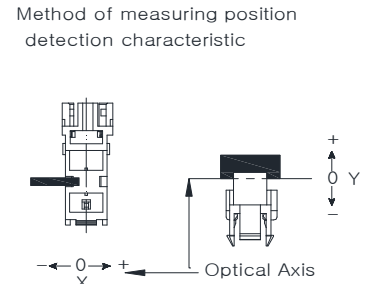
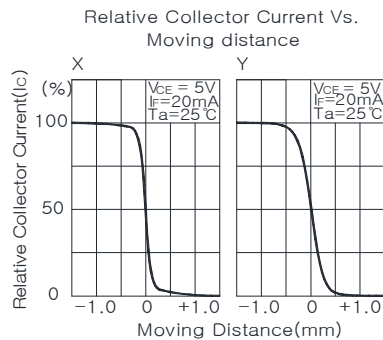
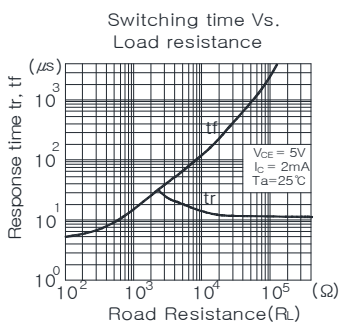
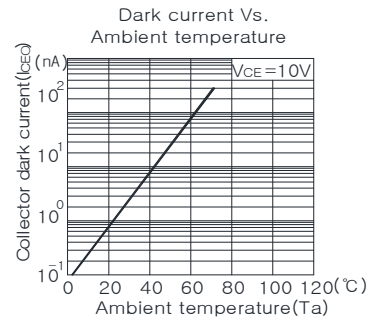
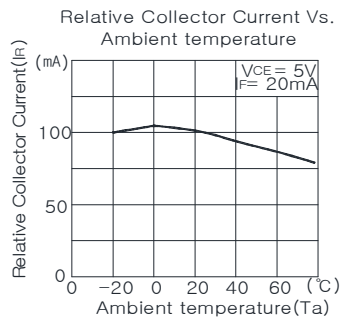
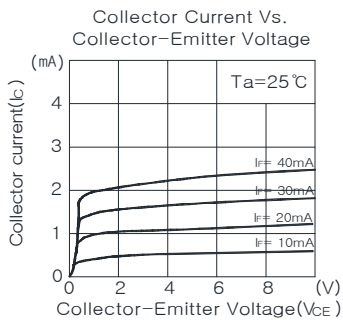
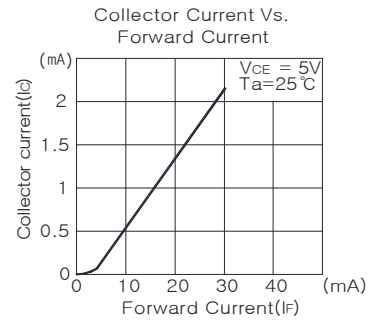
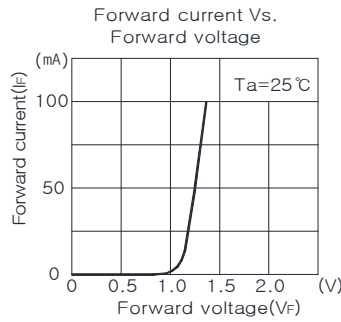
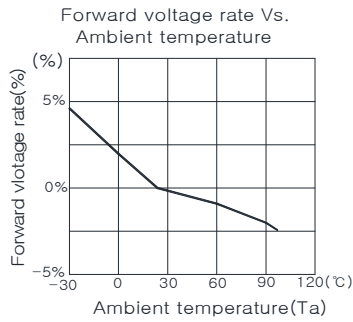
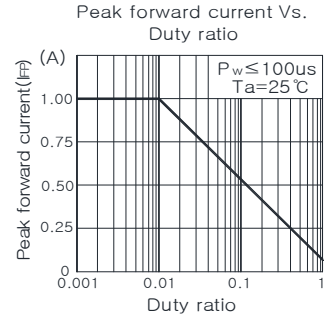
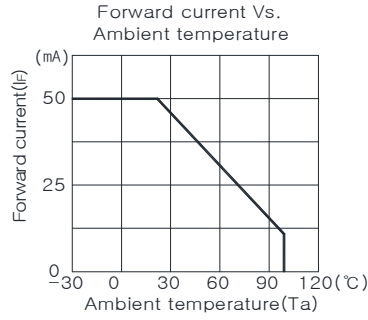
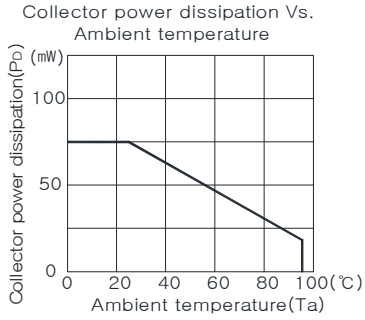
Normal Mounting Type



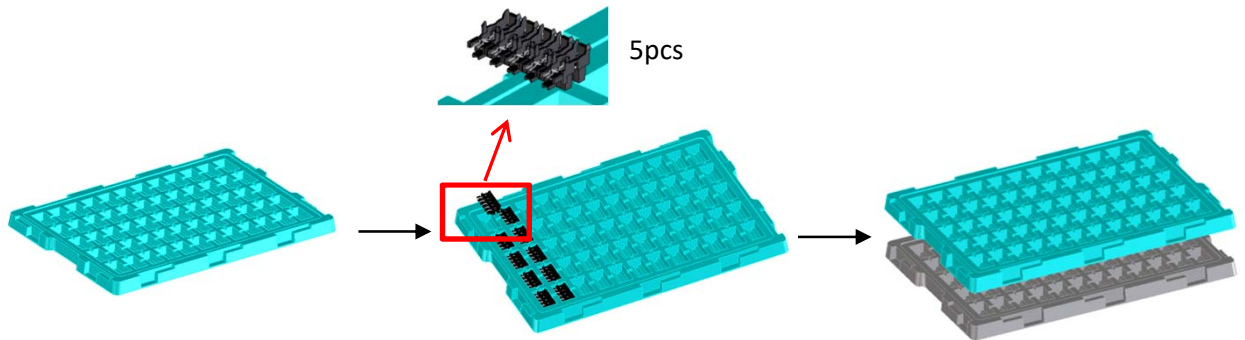
Irregular Mounting Protection Type



CHARACTERISTICS

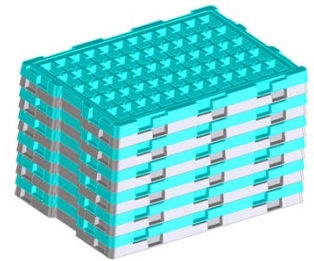
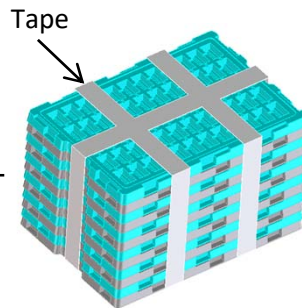


Packing specification



1 Tray = 520*360*25(H)*0.8(T)mm

1 Tray = 300pcs = 60 × 5pcs



#3 Box = 300pcs × 11 = 3300pcs

#3 Box Size = 530 × 370 × 270mm

The shipping slip with the following information is attached to an easily visible location.

- Shipping Date
- Product number (product name)
- Quantity
- Lot No.