## **Photo Interrupter**

**KIT5039C** 

#### **Description**

The KIT5039C is a high performance transmissive type photointerrupter, combines high-output GaAs IRED with high sensitive phototransistor.

#### **Features**

- Snap-in mount type
- Dustproof type
- 5.0mm gap
- RoHS compliant

### **Applications**

- Printers.
- Copiers
- ATM
- Ticket vending machines

#### **Absolute Maximum Ratings** (T<sub>a</sub>=25°C, Unless otherwise specified)

Characteristic		Symbol	Ratings	Unit
Input	Power Dissipation	P <sub>D</sub>	100	mW
	Forward Current	l <sub>F</sub>	50	mA
	Reverse Voltage	$V_R$	5	V
	Peak Forward Current*1	I <sub>FP</sub>	1	А
	Collector Current	I <sub>C</sub>	20	mA
	Collector-Emitter Voltage	V <sub>CEO</sub>	30	V
	Emitter-Collector Voltage	V <sub>ECO</sub>	5	V
Operating Temperature *2		Topr	-20 ~ +85	,C
Storage Temperature *2		T <sub>stg</sub>	-30 ~ +85	°C

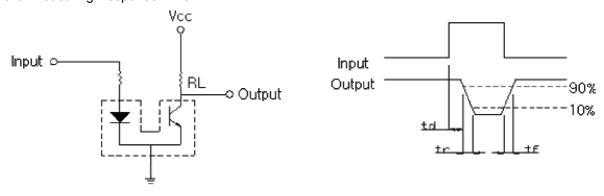
<sup>\*1 :</sup> Pulse width (tw)  $\leq 100 \mu s$ , Period (T) = 10msec.

<sup>\*2:</sup> No icebond or dew.

## **Electrical Characteristics** (T<sub>a</sub>=25°C)

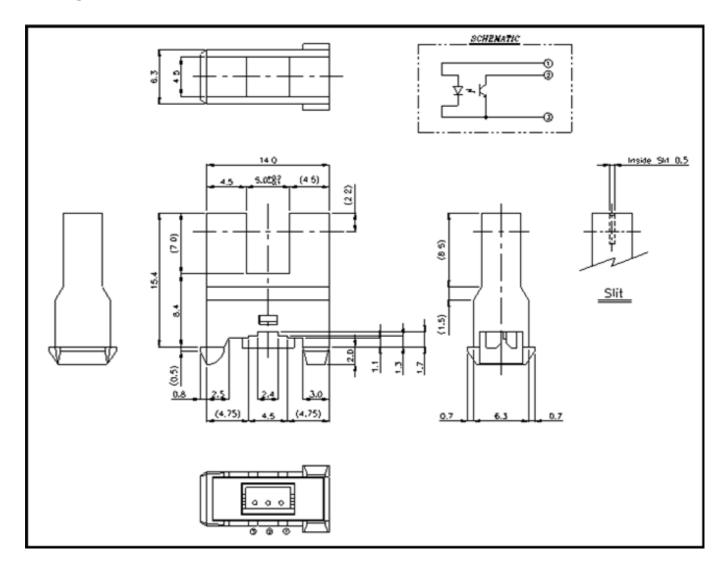
Characteristic		Symbol	Test Condition	Min.	Тур.	Max.	Unit
Input	Forward Voltage	$V_{F}$	I <sub>F</sub> =20mA	-	1.2	2.0	V
	Peak Wavelength	λр	I <sub>F</sub> =20mA	-	940	-	nm
	Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	ı	-	100	uA
Output	Dark Current	I <sub>CEO</sub>	V <sub>CE</sub> =10V, E=0lux	ı	1	100	nA
	Peak Wavelength	λр	-	ı	880	-	nm
Transfer Charac- teristics	Collector Current	Ic	$V_{CE}$ =5.0V, $I_F$ =20mA	0.5	-	-	mA
	C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =0.5mA, I <sub>F</sub> =20mA	ı	0.15	0.4	V
Response Time	Rise Time	$t_r$	V <sub>CC</sub> =5.0V, I <sub>C</sub> =2mA RL=100Ω	-	4	-	usec
	Fall Time	t <sub>f</sub>		-	5	_	usec

#### \* Circuit for Measuring Response Time



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**



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