

# Photointerrupter ZD-1901

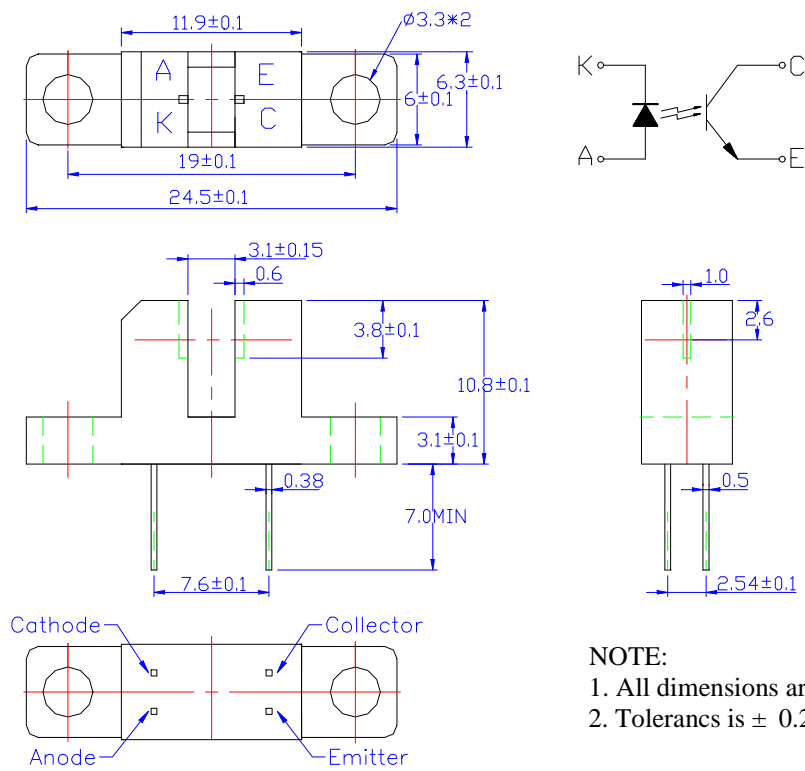
## Features

- High sensing accuracy (Slit width: 1.0 mm)
- PWB direct mounting type package

## Applications

- Copiers, printers, facsimiles
- Optoelectronic switches

## Outline Dimensions



NOTE:  
 1. All dimensions are in millimeter.  
 2. Tolerancs is  $\pm 0.25$ .

### Absolute Maximum Ratings (Ambient Temperature: 25°C)

Item		Symbol	Rating	Units	Note
Input	Forward current	I <sub>F</sub>	50	mA	
	Reverse voltage	V <sub>R</sub>	5	V	
	Peak forward current	I <sub>FP</sub>	1	A	T <sub>w</sub> =10 μs, t=10ms
	Power dissipation	P <sub>d</sub>	75	mW	
Output	Collector current	I <sub>c</sub>	50	mA	
	Collector-Emitter voltage	V <sub>ceo</sub>	30	V	
	Emitter-Collector voltage	V <sub>eco</sub>	5	V	
	Collector power dissipation	P <sub>c</sub>	100	mW	
Storage Temperature		T <sub>stg</sub>	-40 to +85	°C	
Operating Temperature		T <sub>op</sub>	-25 to +85	°C	
Soldering Temperature		T <sub>sol</sub>	260	°C	5 seconds max.

### Electrical Specifications (Ambient Temperature: 25°C)

Item		Symbol	MIN.	TYP.	MAX.	Units	Conditions
Input	Forward voltage	V <sub>F</sub>	1.0	1.15	1.3	V	I <sub>F</sub> =20mA
	Reverse current	I <sub>R</sub>			10	μA	V <sub>R</sub> =5V
	Peak wavelength	λ <sub>p</sub>		940		nm	
	View angle	2θ <sub>1/2</sub>		35		Deg.	I <sub>F</sub> =20mA
Output	Dark current	I <sub>ceo</sub>			100	nA	V <sub>ce</sub> =20V
	C-E saturation voltage	V <sub>ce(sat)</sub>		0.15	0.4	V	I <sub>c</sub> =2mA, I <sub>B</sub> =0.1mA
Light current		I <sub>c(on)</sub>	0.5	2.0		mA	V <sub>ce</sub> =5V I <sub>F</sub> =20mA
Leakage current		I <sub>Leak</sub>			1	μA	
Speed	Rise Time	t <sub>r</sub>		30		μs	V <sub>ce</sub> =5V I <sub>c</sub> =1mA R <sub>L</sub> =1KΩ
	Fall Time	t <sub>f</sub>		25			