

Photointerrupter, Small type



Absolute maximum ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Input(LED)	Forward current	I <sub>F</sub>	50 mA
	Reverse voltage	V <sub>R</sub>	5 V
	Power dissipation	P <sub>D</sub>	80 mW
Output (photo-transistor)	Collector-emitter voltage	V <sub>CEO</sub>	30 V
	Emitter-collector voltage	V <sub>ECO</sub>	4.5 V
	Collector current	I <sub>C</sub>	30 mA
	Collector power dissipation	P <sub>C</sub>	80 mW
	Operating temperature	T <sub>opr</sub>	-25 to +85 °C
Storage temperature	T <sub>stg</sub>	-40 to +100 °C	

Applications

- Optical control equipment
- Cameras
- Floppy disk drives

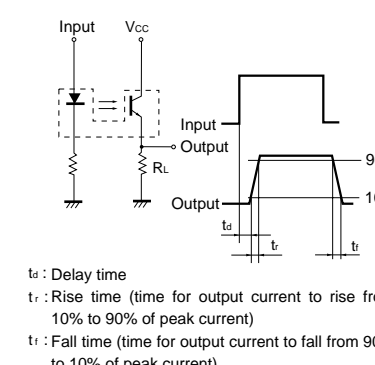
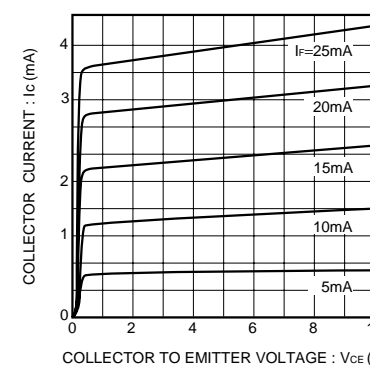
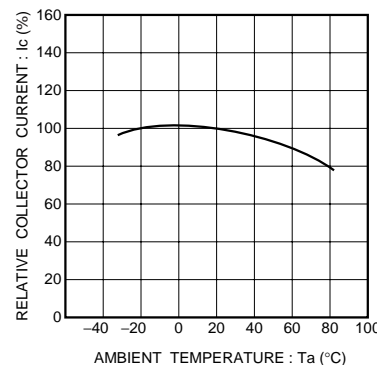
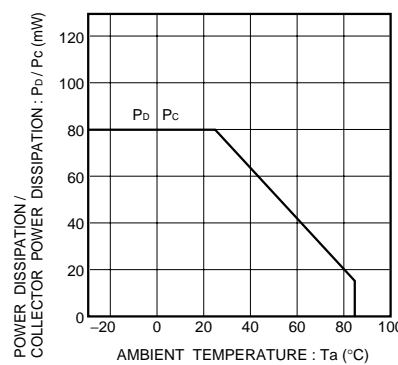
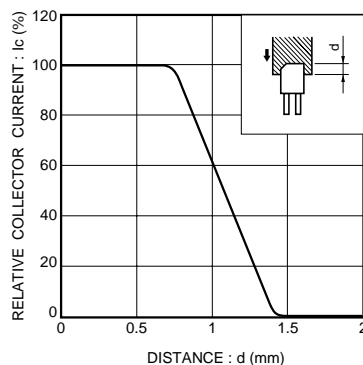
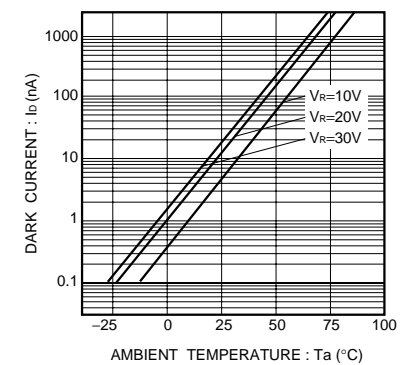
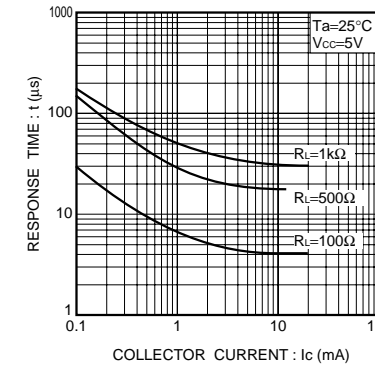
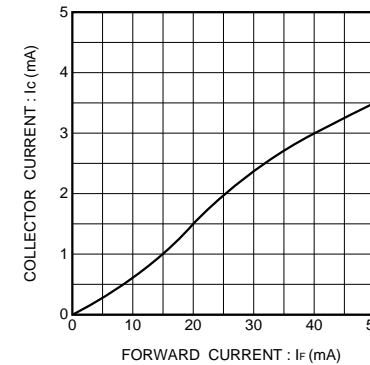
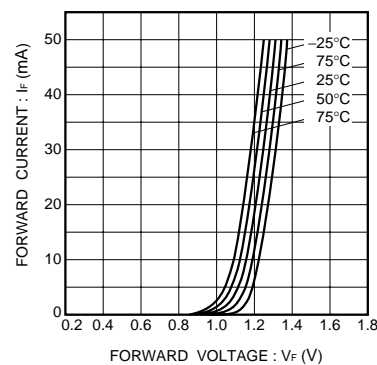
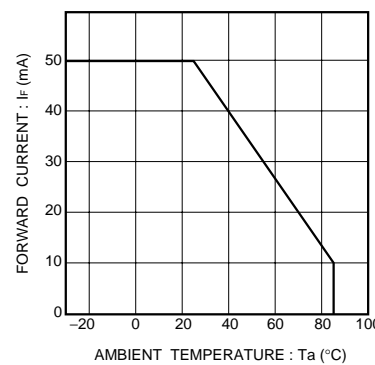
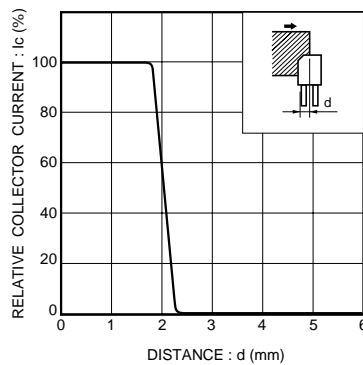
Features

- Ultra-small.
- Minimal influence from stray light.
- Low collector-emitter saturation voltage.

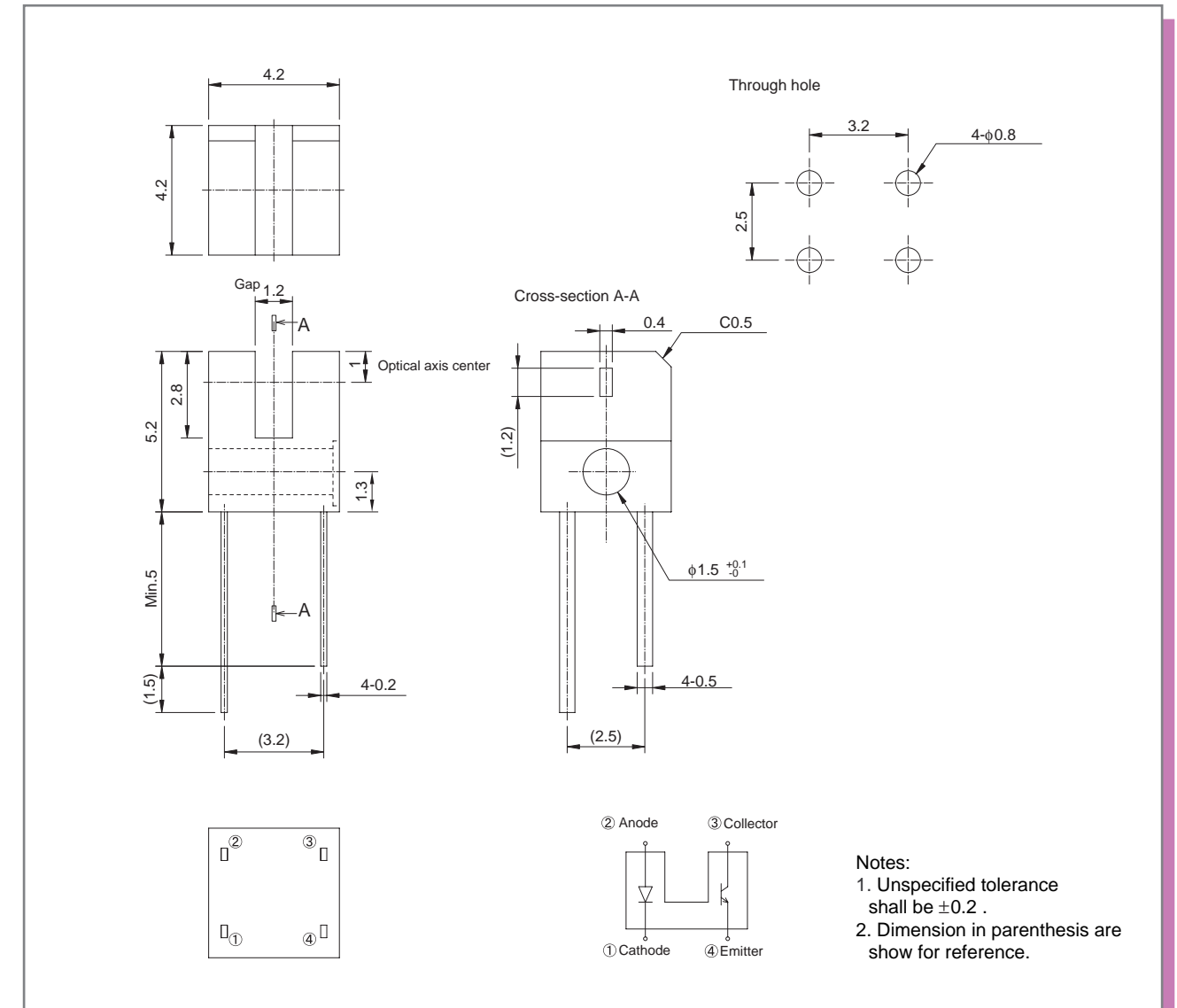
Electrical and optical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions	
Input characteristics	Forward voltage	V <sub>F</sub>	1.3	1.6	V	I <sub>F</sub> =50mA	
	Reverse current	I <sub>R</sub>	-	-	10	μA	V <sub>R</sub> =5V
Output characteristics	Dark current	I <sub>CEO</sub>	-	-	0.5	μA	V <sub>CE</sub> =10V
	Peak sensitivity wavelength	λ <sub>P</sub>	-	800	-	nm	-
Transfer characteristics	Collector current	I <sub>C1</sub>	0.7	-	-	mA	V <sub>CE</sub> =5V, I <sub>F</sub> =20mA
		I <sub>C2</sub>	0.2	-	-	mA	V <sub>CE</sub> =5V, I <sub>F</sub> =5mA
	Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	-	-	0.3	V	I <sub>F</sub> =20mA, I <sub>C</sub> =0.3mA
Response time	tr·tf	-	10	-	μs	V <sub>CC</sub> =5V, I <sub>F</sub> =20mA, R <sub>L</sub> =100Ω	
Infrared light emitter diode	Cut-off frequency	f <sub>c</sub>	-	1	MHz	I <sub>F</sub> =50mA * Non-coherent Infrared light emitting diode used.	
	Peak light emitting wavelength	λ <sub>P</sub>	-	950	nm	-	
Photo transistor emitter diode	Response time	tr·tf	-	10	μs	V <sub>CC</sub> =5V, I <sub>C</sub> =1mA, R <sub>L</sub> =100Ω * This product is not designed to be protected against electromagnetic wave.	
	Maximum sensitivity wavelength	λ <sub>P</sub>	-	800	nm	-	

Electrical and optical characteristics curves



External dimensions (Unit : mm)



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