●Applications

• Printers

• Faxs

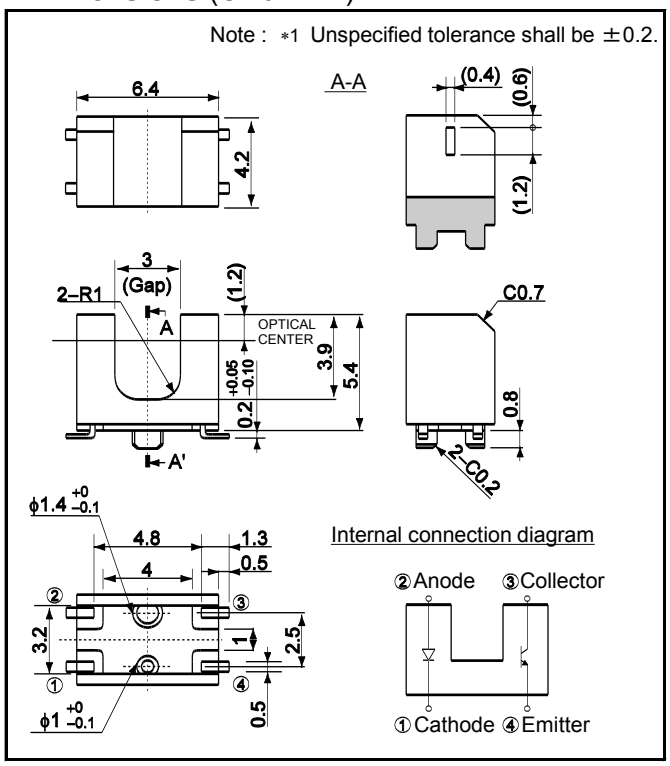
• Optical Control Equipment

●Features

1) Positioning pin results in high mounting accuracy

2) Gap3.0mm

●Dimensions (Unit : mm)



●Absolute maximum ratings (Ta = 25°C)

Parameter		Symbol	Value	Unit
Input (Infrared light emitting diode)	Forward current	I_F	35	mA
	Reverse voltage	V_R	5	V
	Power dissipation	P_D	70	mW
Output (Phototransistor)	Collector-emitter voltage	V_{CEO}	30	V
	Emitter-collector voltage	V_{ECO}	4.5	V
	Collector current	I_C	30	mA
	Collector dissipation	P_C	80	mW
Operating temperature		T_{opr}	−30 to +85	°C
Storage temperature		T_{stg}	−40 to +85	°C

●Electrical and optical characteristics (Ta = 25°C)

1) Input characteristics

Parameter	Symbol	Conditions	Values			Unit
			Min.	Typ.	Max.	
Forward voltage	V_F	I_F =10mA	1.2	1.4	1.6	V
Reverse current	I_R	V_R =5V	-	-	10	μA
Peak light emitting wavelength	λ_p	I_F =10mA	-	850	-	nm

∗ Non-coherent Infrared light emitting diode used.

2) Output characteristics

Parameter	Symbol	Conditions	Values			Unit
			Min.	Typ.	Max.	
Dark current	I_{CED}	V_{CE} =10V	-	-	0.5	μA
Peak sensitivity wavelength	λ_p		-	800	-	nm

∗ This product is not designed to be protected against eledtromagnetic wave.

3) Transfer characteristics

Parameter		Symbol	Conditions	Values			Unit
				Min.	Typ.	Max.	
Collector current		I_C	V_{CE} =5V I_F =10mA	0.18	0.9	-	mA
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_F =10mA I_C =0.1mA	-	-	0.4	V
Response time	Rise time	tr	V_{CC} =5V, I_F =10mA R_L=100Ω	-	10	-	μs
	Fall time	tf		-	10	-	

●Electrical and optical characteristic curves

Fig.1 Relative Output Current vs. Distance(I)

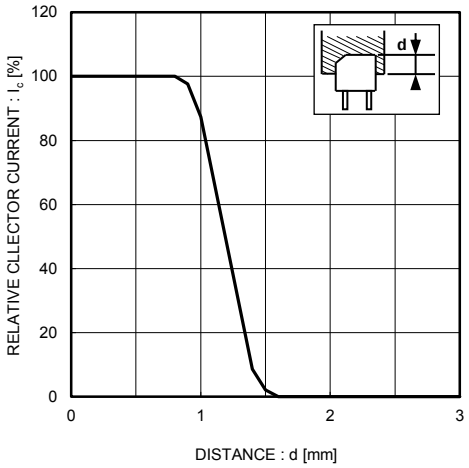


Fig.2 Relative Output Current vs. Distance(II)

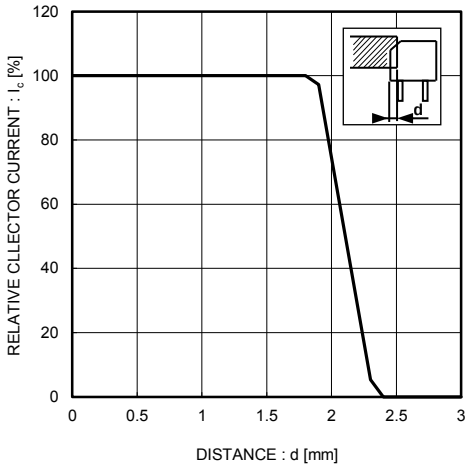


Fig.3 Forward Current vs. Foward Voltage

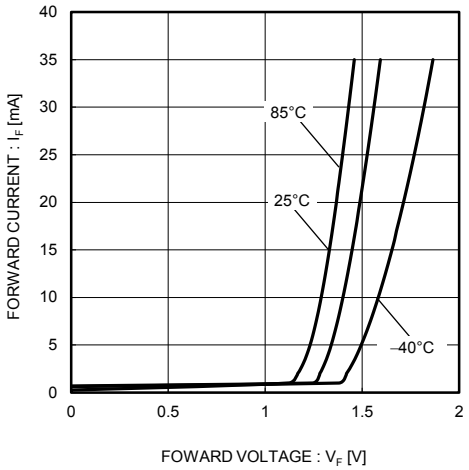


Fig.4 Relative Output vs. Ambient Temperature

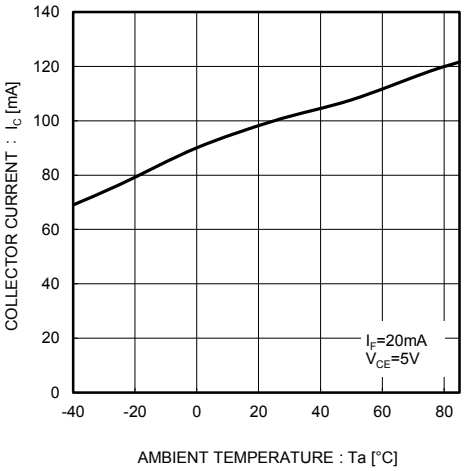


Fig.5 Forward Current Fall Off

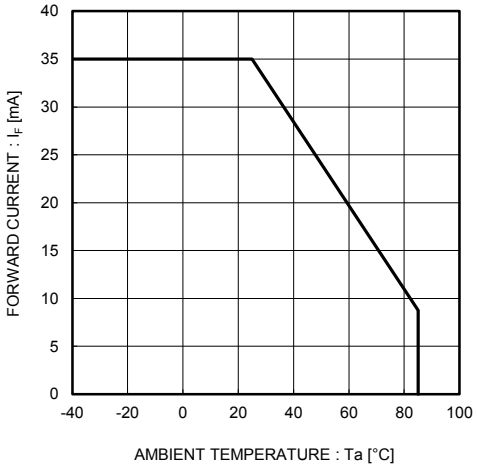
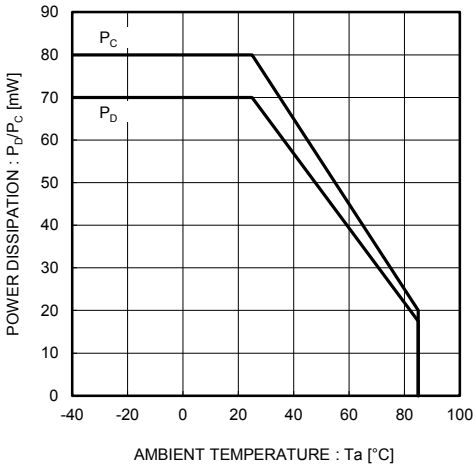


Fig.6 Power Dissipation/Collector Power Dissipation vs. Ambient Temperature



●Electrical and optical characteristic curves

Fig.7 Collector Current vs. Foward Current

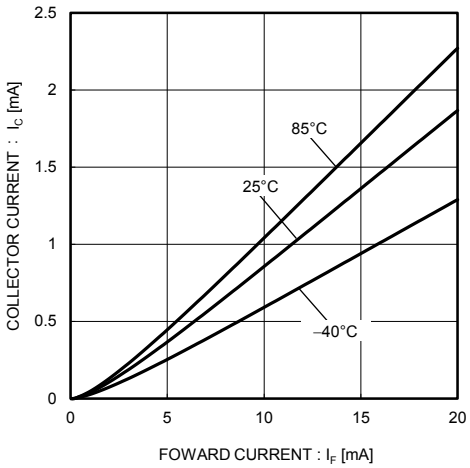


Fig.8 Dark Current vs. Ambient Temperature

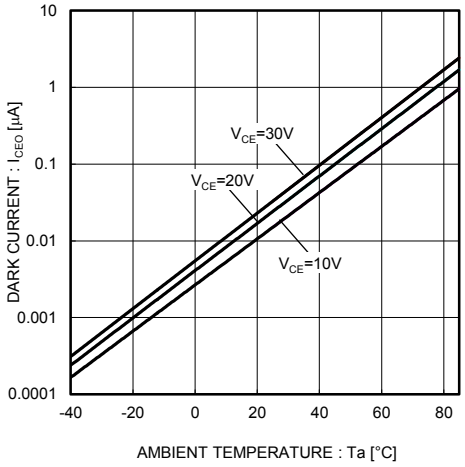
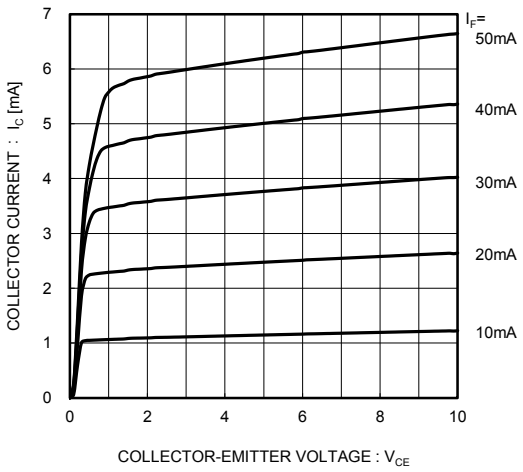


Fig.9 Output Characteristics



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3) Although ROHM is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors.
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