Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Reflective photosensor (photoreflector)

RPR-220UC30N Datasheet

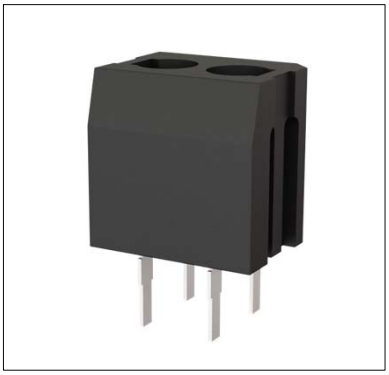
●Applications

- Printers
- MFP (Multi-function Printer)

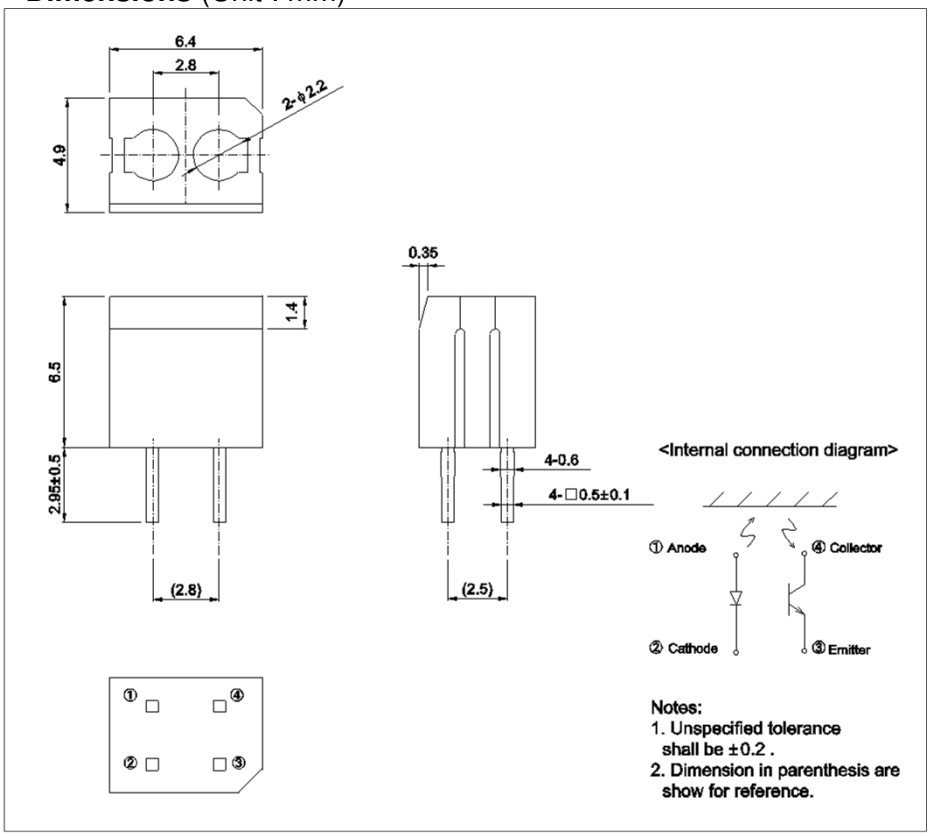
●Features

1) Blue light source, High power.
2) Focus distance 5mm to12mm

●Outline



●Dimensions (Unit : mm)



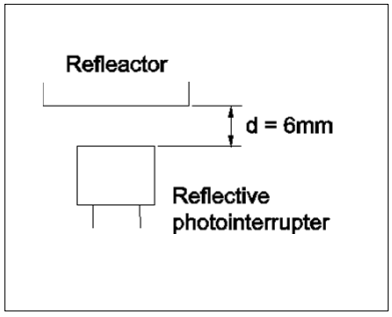
●Absolute maximum ratings (T_a = 25°C)

Parameter		Symbol	Value	Unit
Input (LED)	Forward current	I_F	30	mA
	Reverse voltage	V_R	10	V
	Power dissipation	P_D	80	mW
Output (photo-transistor)	Collector-emitter voltage	V_{CEO}	30	V
	Emitter-collector voltage	V_{ECO}	4.5	V
	Collector current	I_C	30	mA
	Collector power dissipation	P_C	80	mW
Operating temperature		T_{opr}	−25 to +85	°C
Storage temperature		T_{stg}	−30 to +85	°C

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

Parameter		Symbol	Conditions	Values			Unit
				Min.	Typ.	Max.	
Input characteristics	Forward voltage	V_F	I_F =30mA	-	2.0	2.6	V
	Reverse current	I_R	V_R =9V	-	-	100	μA
Output characteristics	Dark current	I_{CEO}	V_{CE}=10V	-	-	10	μA
	Peak sensitivity wavelength	λ_p	-	-	800	-	nm
Transfer characteristics	Collector current	I_C	V_{CE} =5V, I_F=10mA *	0.08	-	0.8	mA
	Collector-emitter saturation voltage	$V_{CE(sat)}$	I_F =20mA, I_C=0.1mA *	-	0.1	0.3	V
	Response time	tr·tf	V_{CC} =10V, I_F=20mA, R_L=100Ω *	-	10	-	μs
Infrared light emitter diode	Cut-off frequency	f_C	I_F =50mA * Non-coherent Infrared light emitting diode used.	-	1	-	MHz
	Peak light emitting wavelength	λ_p		-	630	-	nm
Photo transistor	Response time	tr·tf	V_{CC} =5V, I_C=1mA, R_L=100Ω *This product is not designed to be protected against electromagnetic wave.	-	10	-	μs
	Maximum sensitivity wavelength	λ_p	-	-	800	-	nm

* Reflector object : Standard white paper. (Reflection ratio = 90%)



●Electrical and optical characteristics curves

Fig.1 Relative Output Current vs.Distance

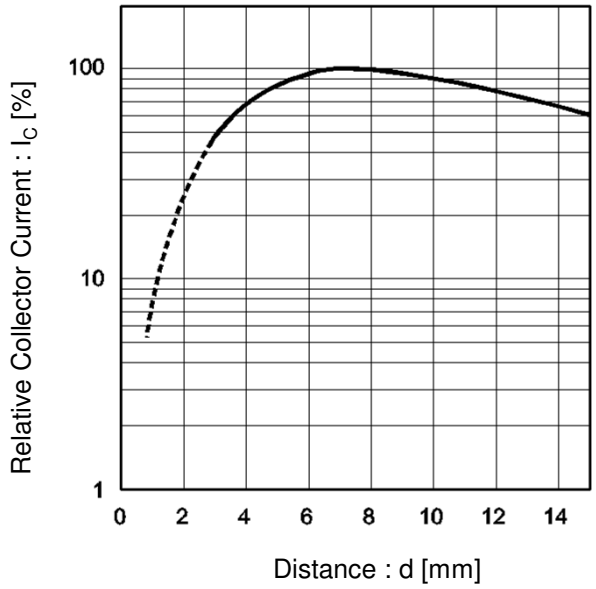


Fig.2 Forward Current vs.Ambient Temperature

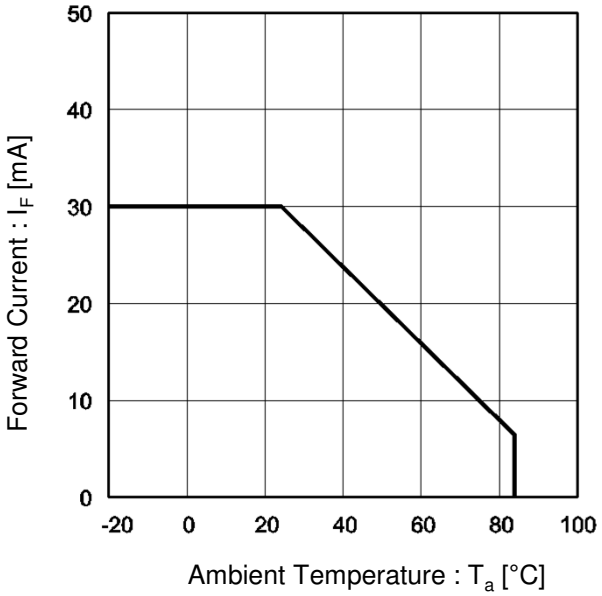


Fig.3 Forward Current vs. Forward Voltage

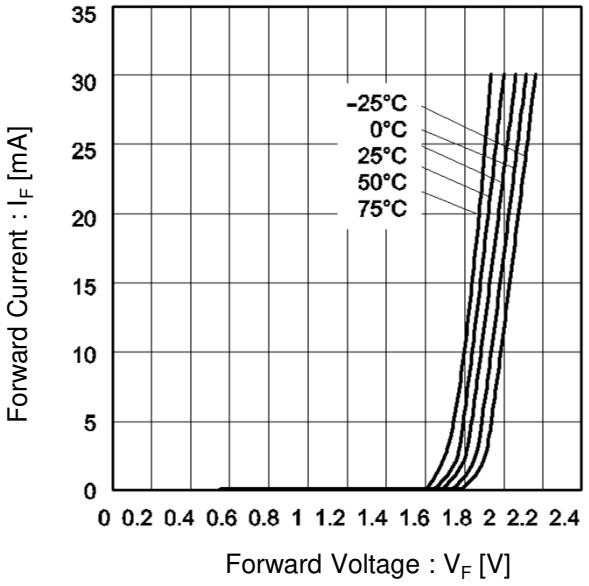
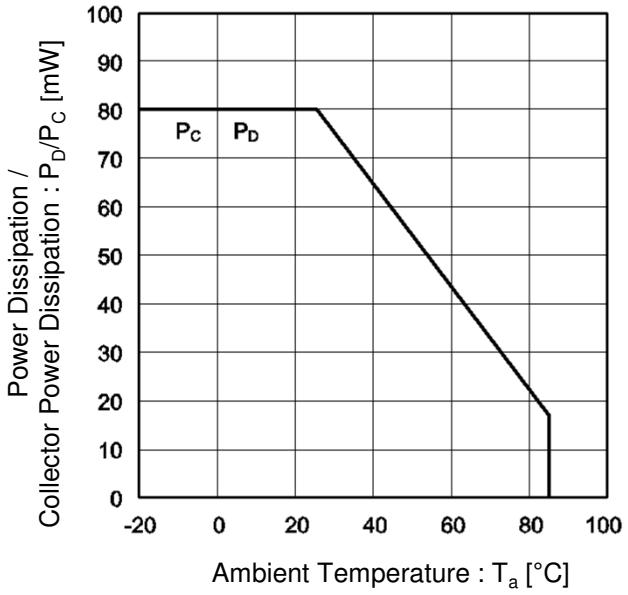


Fig.4 Power Dissipation / Collector Power Dissipation vs. Ambient Temperature



●Electrical and optical characteristics curves

Fig.5 Relative Output vs. Ambient Temperature

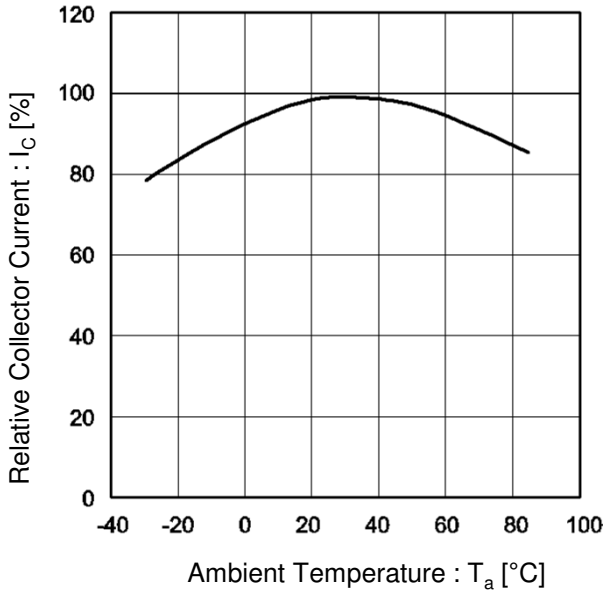


Fig.6 Collector Current vs. Forward Current

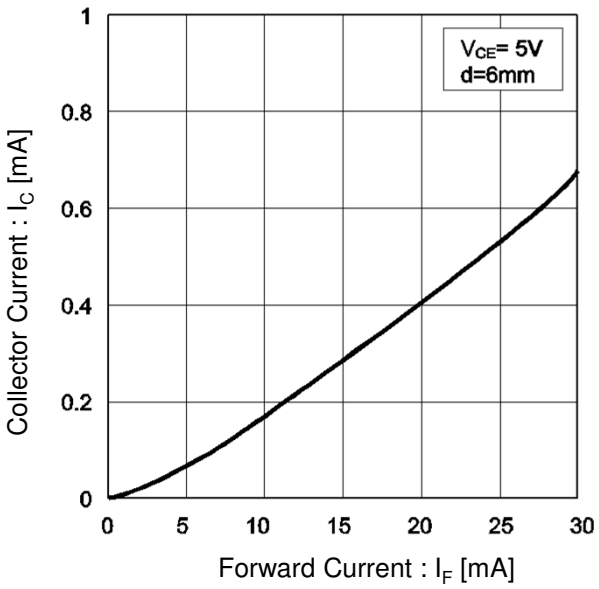


Fig.7 Output Characteristics

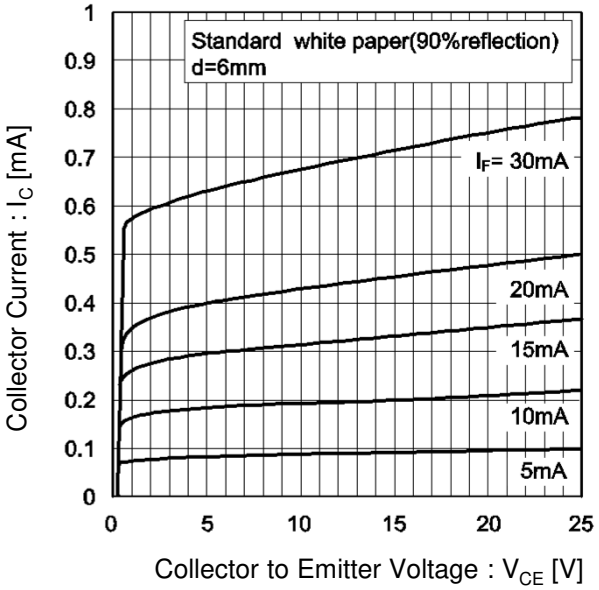
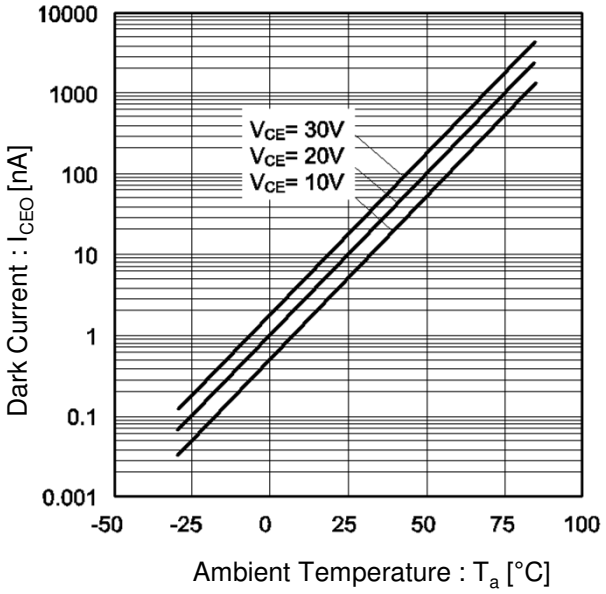


Fig.8 Dark Current vs. Ambient Temperature



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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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