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

Parameter			Symbol	Conditions	Values			Unit
					Min.	Typ.	Max.	
Input characteristics	Forward voltage		V_F	I_F =50mA	-	1.3	1.6	V
	Reverse current		I_R	V_R =5V	-	-	10	μA
Output characteristics	Dark current		I_{CEO}	V_{CE}=10V	-	-	0.5	μA
	Peak sensitivity wavelength		λ_p	-	-	800	-	nm
Transfer characteristics	Collector current		I_C	V_{CE} =5V, I_F=20mA	0.45	1.8	4.95	mA
	Collector-emitter saturation voltage		$V_{CE(sat)}$	I_F =20mA, I_C=0.1mA	-	-	0.4	V
	Response time	Rise time	tr	V_{CC} =5V, I_F=20mA, R_L=100Ω	-	10	-	μs
		Fall time	tf		-	10	-	μs
Collector rank	A		I_C	V_{CE} =5V, I_F=20mA	0.45	-	2.33	mA
	B				0.95	-	4.95	
Infrare dlight 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		-	950	-	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

●Electrical and optical characteristics curves

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

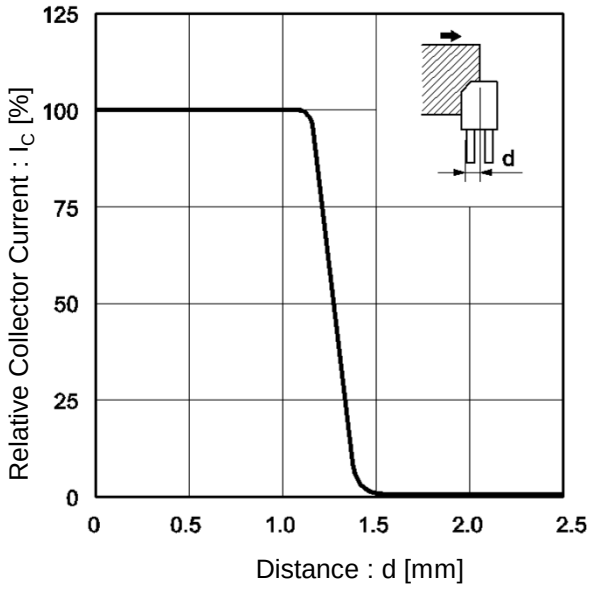


Fig.2 Relative Output Current vs.Distance (II)

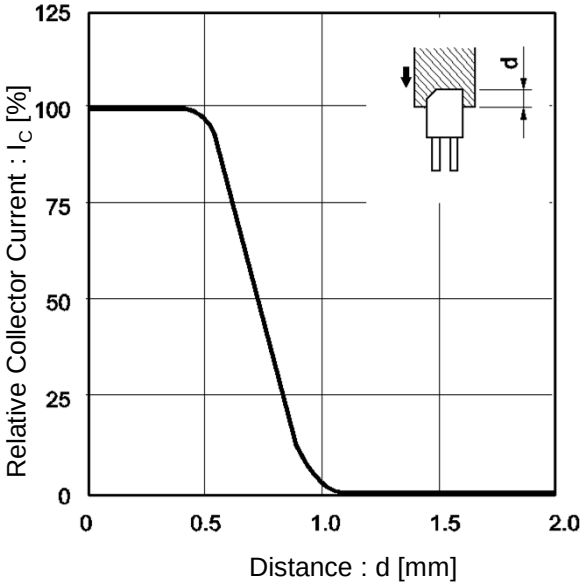


Fig.3 Forward Current Falloff

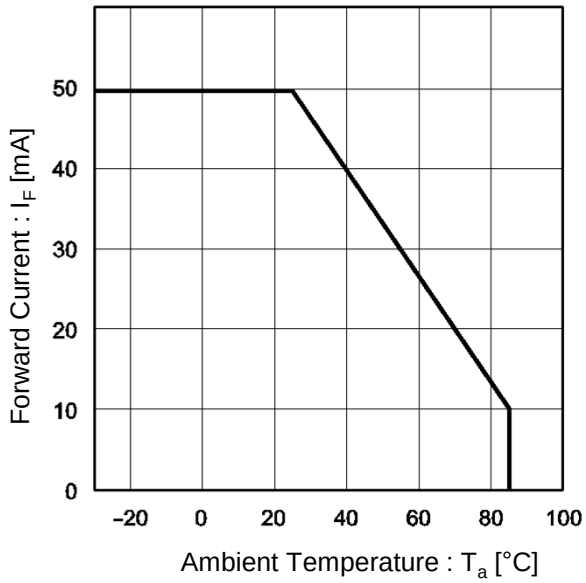
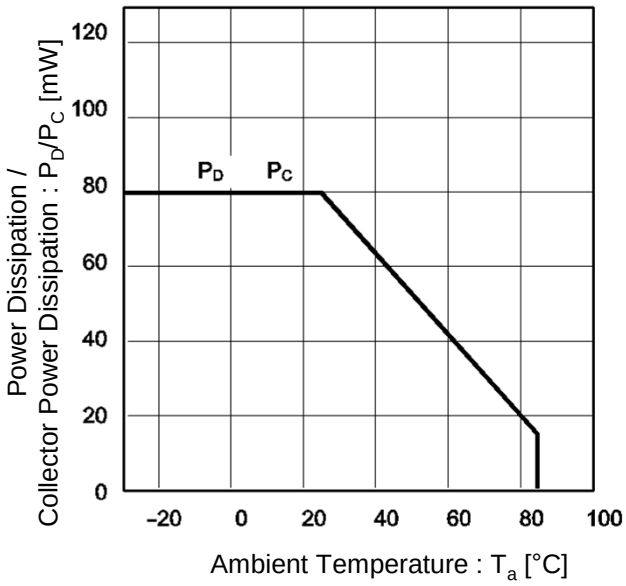


Fig.4 Power Dissipation / Collector Power Dissipation vs. Ambient Temperature



●Electrical and optical characteristics curves

Fig.5 Forward Current vs. Forward Voltage

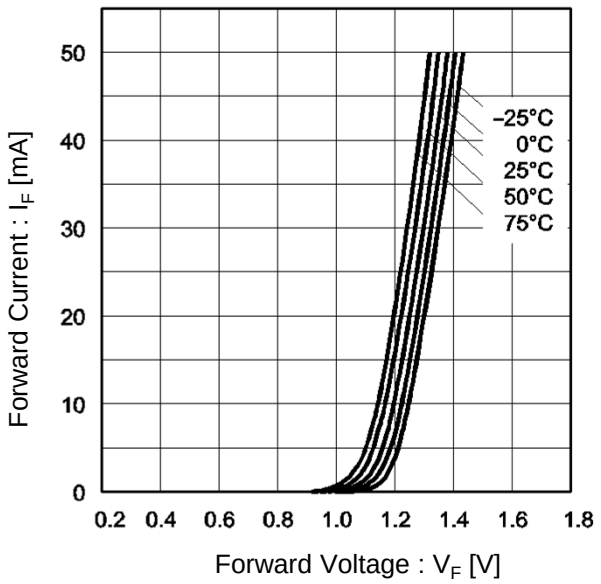


Fig.6 Collector Current vs. Forward Current

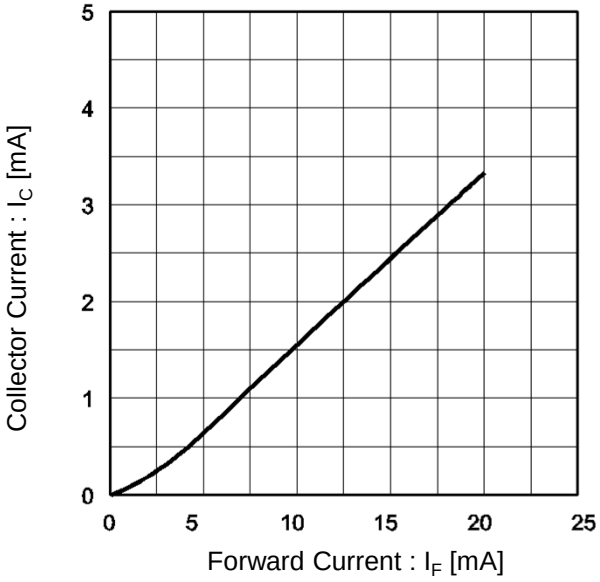


Fig.7 Relative Output vs. Ambient Temperature

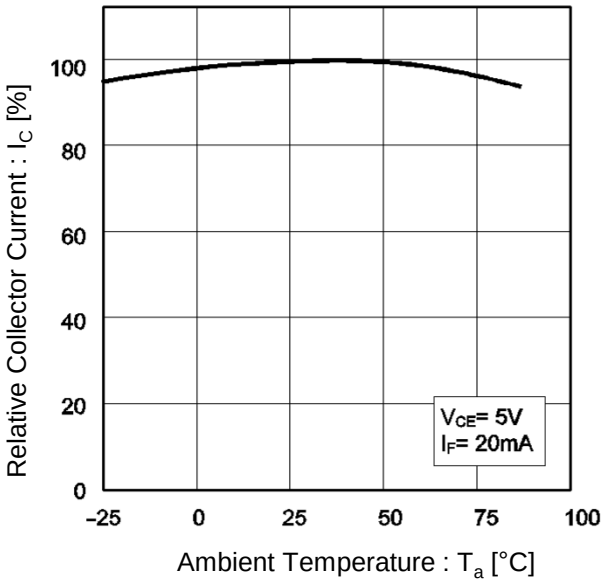
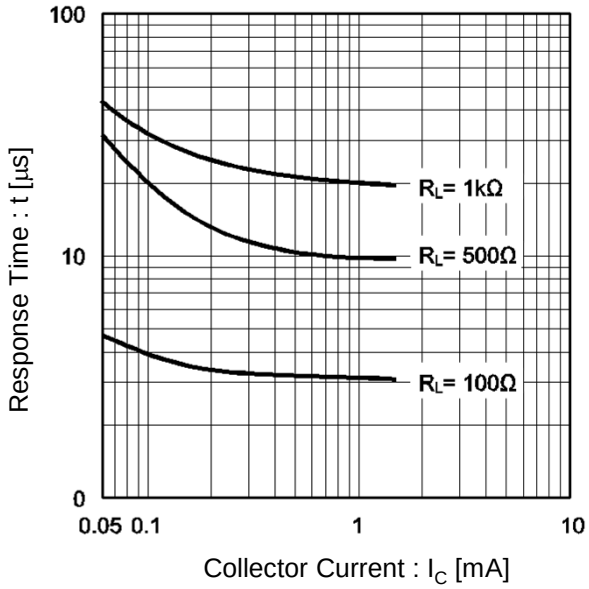


Fig.8 Response Time vs. Collector Current



●Electrical and optical characteristics curves

Fig.9 Dark Current vs. Ambient Temperature

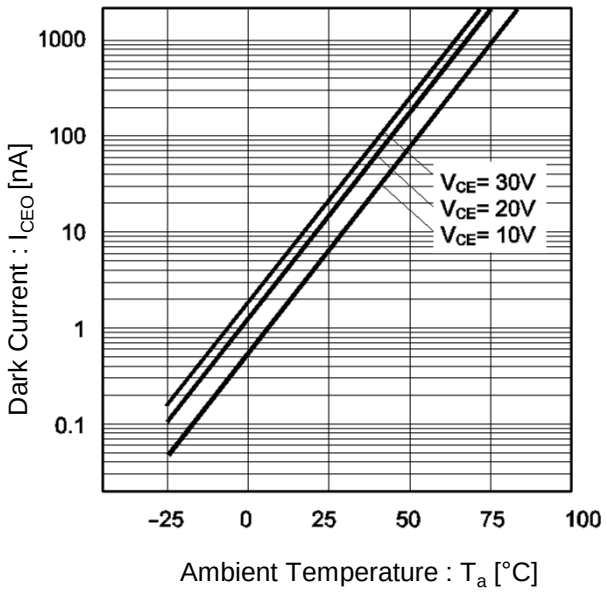


Fig.10 Output Characteristics

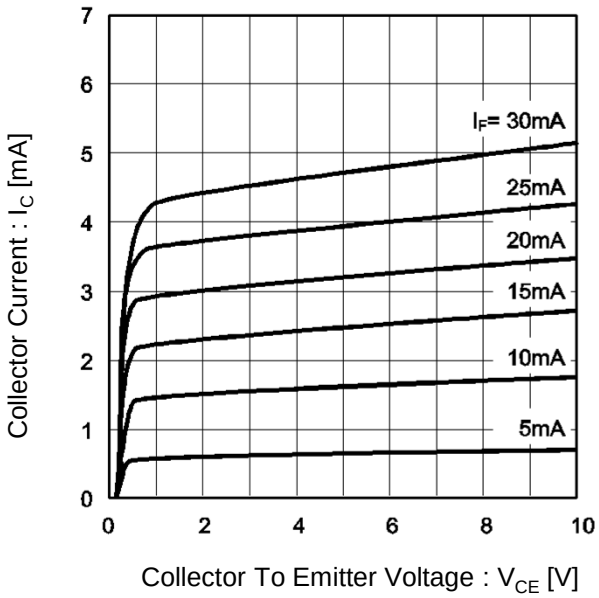
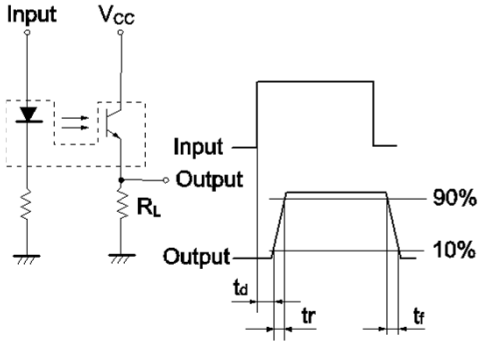


Fig.11 Response Time Measurement Circuit



t_d : Delay time
t_r : Rise time (time for output current to rise from 10% to 90% of peak current)
t_f : Fall time (time for output current to fall from 90% to 10% of peak current)

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7) The Products specified in this document are not designed to be radiation tolerant.

8) For use of our Products in applications requiring a high degree of reliability (as exemplified below), please contact and consult with a ROHM representative : transportation equipment (i.e. cars, ships, trains), primary communication equipment, traffic lights, fire/crime prevention, safety equipment, medical systems, servers, solar cells, and power transmission systems.

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rpi-125 - Web Page

Distribution Inventory

Part Number	rpi-125
Package	RPI-125
Unit Quantity	4000
Minimum Package Quantity	4000
Packing Type	Bulk
Constitution Materials List	inquiry
RoHS	Yes