# Phototransistor, top view type

RPT-34PB3F Datasheet

The RPT-34PB3F is a silicon planar phototransistor.

It is particularly suited for use with a ROHM SIR-34ST3F infrared light emitting diode.

## Applications

· Optical control equipment

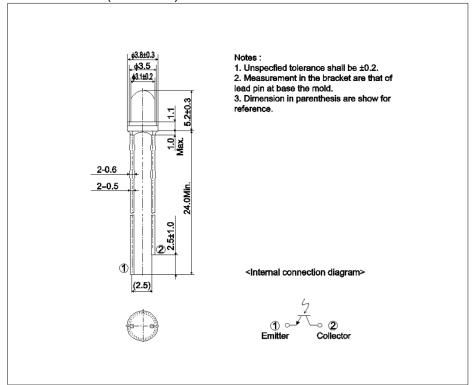
#### Features

1) High sensitivity.

## Outline



## ● Dimensions (Unit: mm)



## ●Absolute maximum ratings (T<sub>a</sub> = 25°C)

Parameter	Symbol	Value	Unit
Collector-emitter voltage	V <sub>CEO</sub>	32	V
Emitter-collector voltage	V <sub>ECO</sub>	5	V
Collector current	I <sub>C</sub>	30	mA
Collector power dissipation	P <sub>C</sub>	150	mW
Operating temperature	$T_{opr}$	-25 to +85	°C
Storage temperature	T <sub>stg</sub>	-30 to +85	°C

## ●Electrical and optical characteristics (T<sub>a</sub> = 25°C)

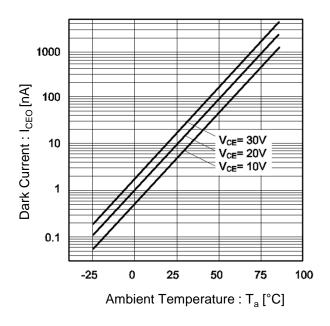
Parameter	Symbol	Conditions	Values			Unit
			Min.	Тур.	Max.	Offic
Light current	I <sub>C</sub>	V <sub>CE</sub> =5V, E=500Lx	2.0	ı	ı	mA
Dark current	I <sub>CEO</sub>	V <sub>CE</sub> =10V (Black box)	ı	ı	0.5	μΑ
Peak sensitivity wavelength	$\lambda_{p}$	-	-	800	-	nm
Collector-emitter saturationvoltage	$V_{CE(sat)}$	I <sub>C</sub> =1mA, E=500Lx	-	-	0.4	V
Half-angle	$\theta_{1/2}$	-	-	±36	-	deg
Response time	tr∙tf	$V_{CC}$ =5V, $I_{C}$ =1mA, $R_{L}$ =100 $\Omega$	-	10	-	μS

## ●Classified table of rank

Item	Light current : I <sub>C</sub>	Unit
L	2.0 to 5.0	mA
М	3.0 to 8.0	mA
N	5.5 to 13.0	mA

## •Electrical and optical characteristics curves

Fig.1 Dark Current vs. Ambient Temperature Fig.2 Relative Output vs. Ambient Temperature



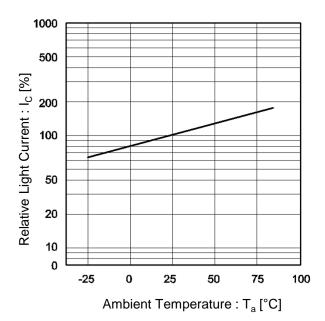


Fig.3 Light Current vs. Emitter Strength

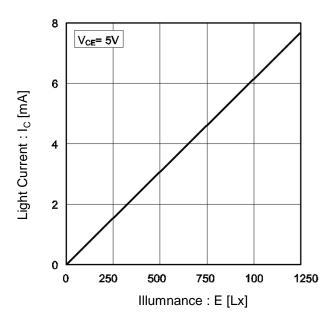
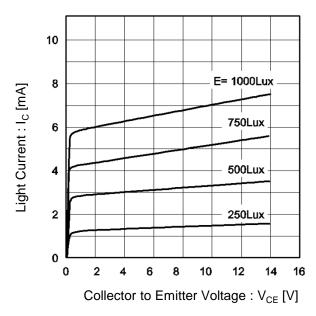


Fig.4 Output Characteristics



## •Electrical and optical characteristics curves

Fig.5 Spectral Sensitivity

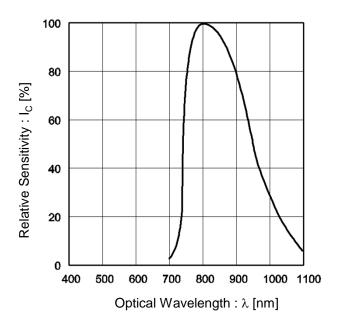


Fig.6 Collector Power Dissipation vs. Ambient Temperature

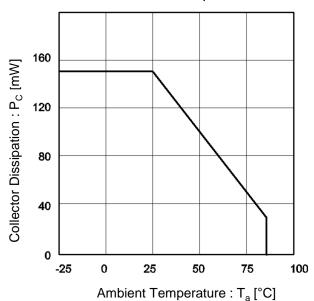
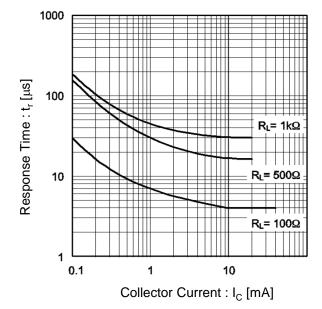
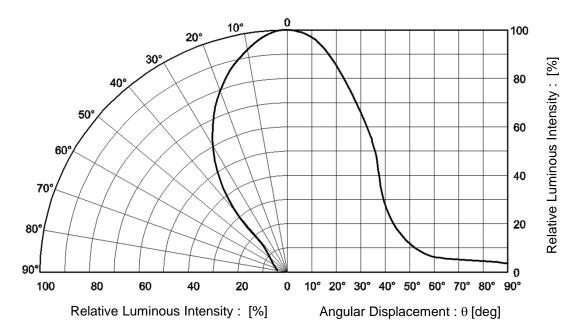


Fig.7 Response time vs.Collector Current



## •Electrical and optical characteristics curves

Fig.8 Directional Pattern



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## rpt-34pb3f - Web Page

**Distribution Inventory** 

Part Number	rpt-34pb3f
Package	DIP
Unit Quantity	2000
Minimum Package Quantity	2000
Packing Type	Bulk
Constitution Materials List	inquiry
RoHS	Yes