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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.

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# Phototransistor, top view type

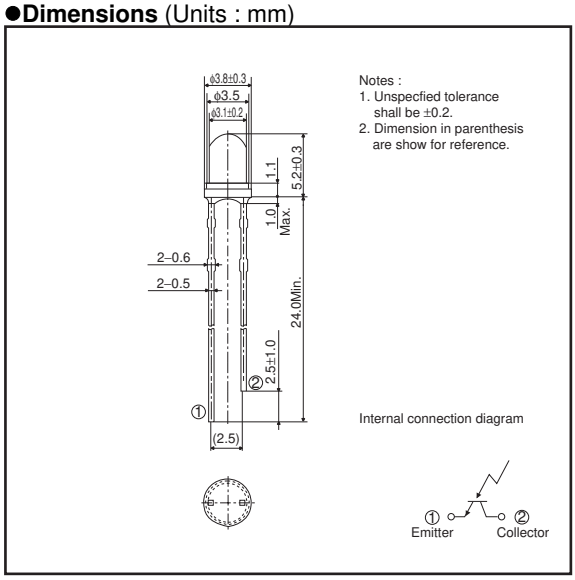
## RPT-34PB3F

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
High sensitivity.

### ●Dimensions (Units : mm)




### ●Absolute maximum ratings (Ta = 25°C)

| Parameter | Symbol | Limits | Unit |
|---|---|---|---|
| Collector-emitter voltage | $V_{CEO}$ | 32 | V |
| Emitter-collector voltage | $V_{ECO}$ | 5 | V |
| Collector current | $I_C$ | 30 | mA |
| Collector power dissipation | $P_C$ | 150 | mW |
| Operating temperature | Topr | −25~+85 | °C |
| Storage temperature | Tstg | −30~+85 | °C |

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

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|---|---|---|---|---|---|---|
| Light current | $I_C$ | 2.0 | – | – | mA | $V_{CE}$=5V, E=500Lx |
| Dark current | $I_{CEO}$ | – | – | 0.5 | μA | $V_{CE}$=10V(Black box) |
| Peak sensitivity wavelength | $\lambda_P$ | – | 800 | – | nm | – |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | – | – | 0.4 | V | $I_C$=1mA, E=500Lx |
| Half-angle | $\theta_{1/2}$ | – | ±36 | – | deg | – |
| Response time | $t_r$·$t_f$ | – | 10 | – | μs | $V_{CC}$=5V, $I_C$=1mA, $R_L$=100Ω |

## ●Electrical and optical characteristic curves

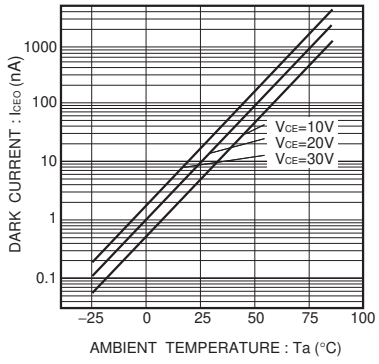



Fig.1 Dark current vs. ambient temperature

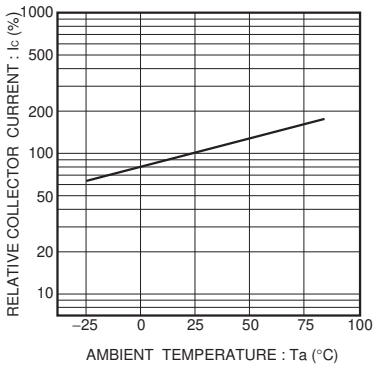



Fig.2 Relative output vs. ambient temperature

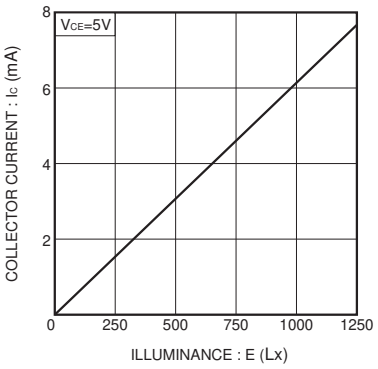



Fig.3 Light current vs. irradiance

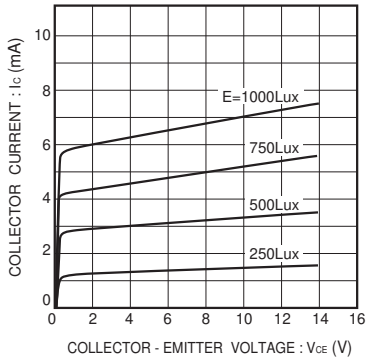



Fig.4 Output characteristics

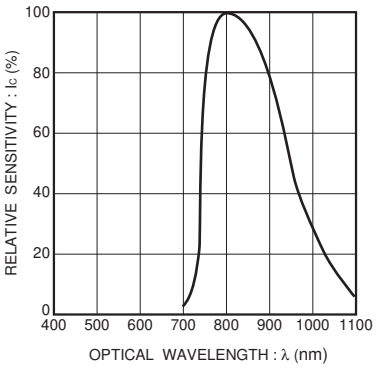



Fig.5 Spectral sensitivity

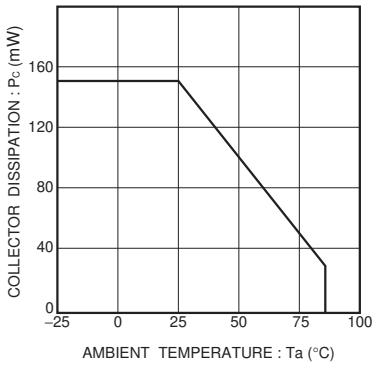



Fig.6 Collector dissipation vs. ambient temperature

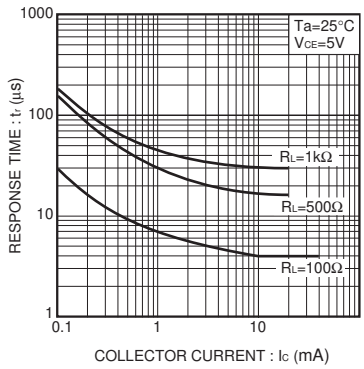



Fig.7 Response time vs. collector current

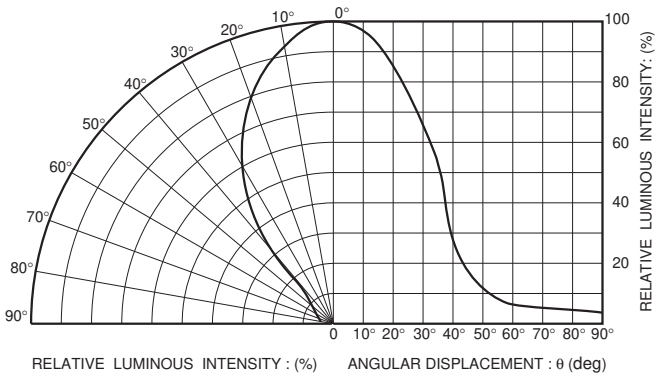



Fig.8 Directional pattern

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