

Phototransistor, top view type

RPT-34PB3F

The RPT-34PB3F is a silicon planar phototransistor.

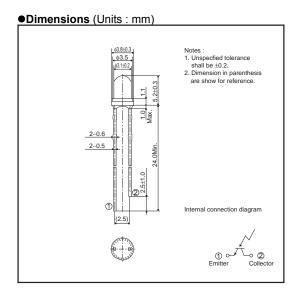
It is particularly suited for use with a ROHM SIR-34ST3F infrared light emitting diode.

Applications

Optical control equipment

Features

High sensitivity.



● Absolute maximum ratings (Ta = 25°C)

| Parameter | Symbol Limits | | Unit |
|-----------------------------|---------------|---------|------|
| Collector-emitter voltage | Vceo | 32 | V |
| Emitter-collector voltage | Veco | 5 | V |
| Collector current | lc | 30 | mA |
| Collector power dissipation | Pc | 150 | mW |
| Operating temperature | Topr | -25~+85 | °C |
| Storage temperature | Tstg | -30~+85 | °C |

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

| Parameter | Symbol | Min. | Тур. | Max. | Unit | Conditions |
|--------------------------------------|----------|------|------|------|------|-------------------------|
| Light current | lc | 2.0 | - | _ | mA | Vce=5V, E=500Lx |
| Dark current | Iceo | _ | _ | 0.5 | μΑ | VcE=10V(Black box) |
| Peak sensitivity wavelength | λρ | - | 800 | - | nm | - |
| Collector-emitter saturation voltage | VCE(sat) | _ | _ | 0.4 | V | Ic=1mA, E=500Lx |
| Half-angle | θ1/2 | - | ±36 | - | deg | - |
| Response time | tr•tf | - | 10 | - | μs | Vcc=5V, Ic=1mA, RL=100Ω |

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RPT-34PB3F Data Sheet

•Electrical and optical characteristic curves

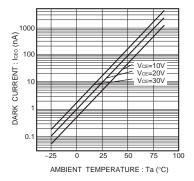


Fig.1 Dark current vs. ambient temperature

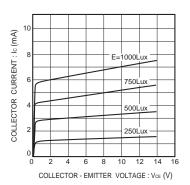


Fig.4 Output characteristics

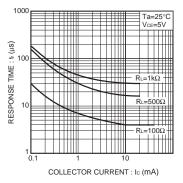


Fig.7 Response time vs. collector current

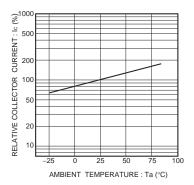


Fig.2 Relative output vs. ambient temperature

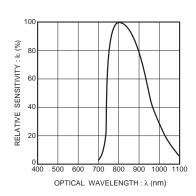


Fig.5 Spectral sensitivity

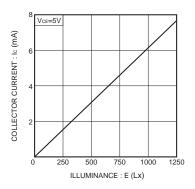


Fig.3 Light current vs. irradiance

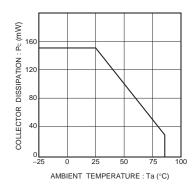


Fig.6 Collector dissipation vs. ambient temperature

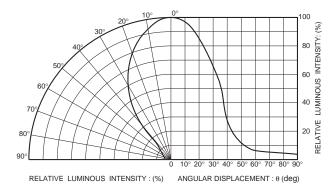


Fig.8 Directional pattern

Notes

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