Phototransistor, top view type RPT-38PT3F

RPT-38PT3F is photo transistor of the top view type.

Molded with transparent resin, and can be used for visible light source. Also, can be used for illuminance sensor.

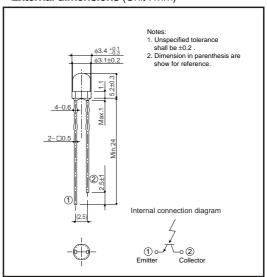
Application

Optical control equipment Illuminance sensor.

Features

- 1) High sensitivity.
- 2) It can be used for visible light source.

●External dimensions (Unit : mm)



● Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-emitter voltage	Vceo	32	V
Emitter-collector voltage	VECO	5	V
Collector current	Ic	30	mA
Collector power dissipation	Pc	150	mW
Operating temperature	Topr	-25 to +85	°C
Storage temperature	Tstg	-30 to +100	°C

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Light current	Ic	2.0	_	_	mA	Vce=5V, E=500Lx
Dark current	ICEO	_	_	0.5	μΑ	VcE=10V(Black box)
Peak sensitivity wavelength	λР	_	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

Electrical and optical characteristic curves

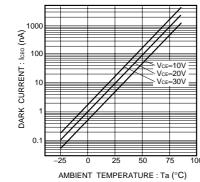


Fig.1 Dark current

vs. ambient temperature

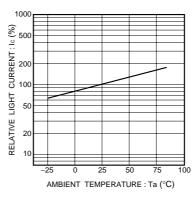


Fig.2 Relative output vs. ambient temperature

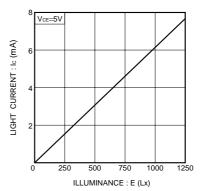


Fig.3 Light current vs. irradiance

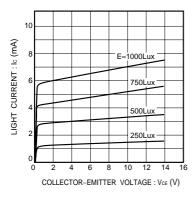


Fig.4 Output characteristics

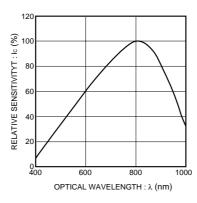


Fig.5 Spectral sensitivity

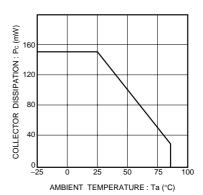


Fig.6 Collector dissipation vs. ambient temperature

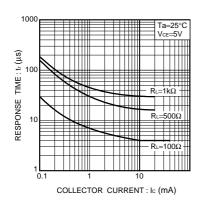


Fig.7 Response time vs. collector current

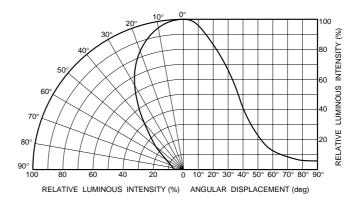


Fig.8 Directional pattern

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