Phototransistor, side view type RPM-22PB

The RPM-22PB is a silicon phototransistor in a side-facing package. High sensitivity with φ1.5 lens.

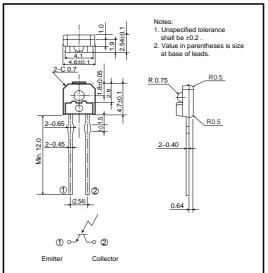
Applications

Optical control equipment Receiver for sensors

● Features

- 1) High sensitivity.
- 2) Molded in plastic with a visible light filter. (Filter out light 750nm or less)
- 3) Side-facing detector.

●External dimensions (Units : 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~+85	°C
Storage temperature	Tstg	-30~+100	°C

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

Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Light current	lc	0.48	-	1.94	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=0.1mA, E=500Lx
Half-angle	θ1/2	_	±32	-	deg	-
Response time	tr•tf	-	10	-	μs	VcE=5V, Ic=1mA, RL=100Ω

Electrical and optical characteristic curves

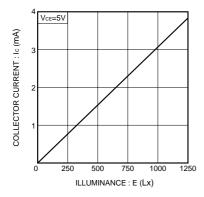


Fig.1 Collector current vs. emitting strength

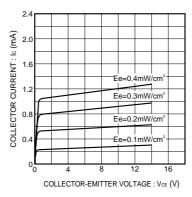


Fig.2 Output characteristics

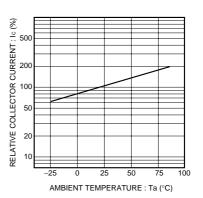


Fig.3 Relative output vs. ambient temperature

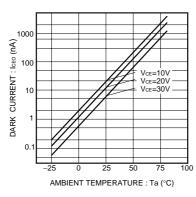


Fig.4 Dark current vs. ambient temperature

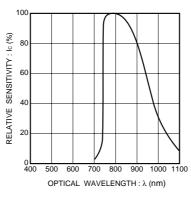


Fig.5 Spectral sensitivity

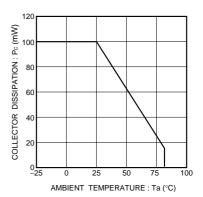


Fig.6 Collector dissipation vs. ambient temperature

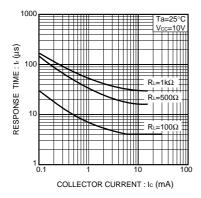


Fig.7 Response time vs. collector current

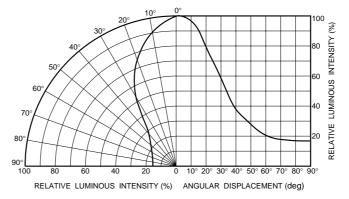


Fig.8 Directional pattern

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