RPT-38PT3F

Silicon planar phototransistor

This silicon planar phototransistor is housed in a compact, plastic housing. Recommended for use with Rohm LED, SIR-381SB.

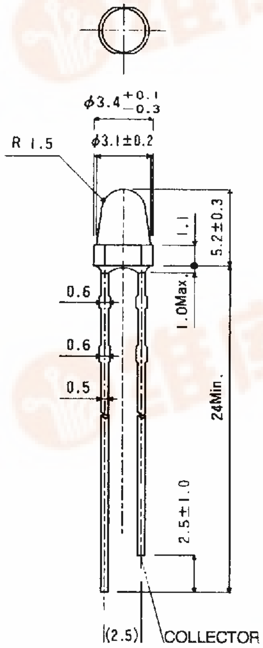
Features

- compact, ϕ = 3 mm
- highly sensitive
- long life and high reliability
- low cost plastic package

Applications

- light-controlled equipment
- light sensor for remote controlled devices

Dimensions (Units : mm)



Selection guide

RPT-38PT3F	semi-standard

Absolute maximum ratings (T_a = 25°C)

Parameter	Symbol	Limits	Unit
Collect-to-emitter voltage	V_{CEO}	32	V
Emitter-to-collector voltage	V_{ECO}	5	V
Photoelectric current	I_C	30	mA
Collector loss	P_C	150	mW
Operating temperature	T_{opr}	−25 ~ +85	°C
Storage temperature	T_{stg}	−30 ~ +100	°C

Electro-optical characteristics (T_a = 25°C)

Parameter	Symbol	Min	Typical	Max	Unit	Conditions
Collector-to-emitter breakdown voltage	BV_{CEO}	30			V	$I_C = 50\ \mu A$
Dark current	I_{CEO}			0.5	µA	$V_{CE} = 10$ V
Photoelectric current	I_C	2.0			mA	$V_{CE} = 5$ V, E = 500 Lux
Peak sensitivity wavelength	λ_p		800		nm	
Response time	t_r or t_f		10		µs	$V_{CC} = 5$ V, $I_C = 1$ mA, $R_L = 100\ \Omega$
Half angle	$\theta_{1/2}$		± 30		deg	

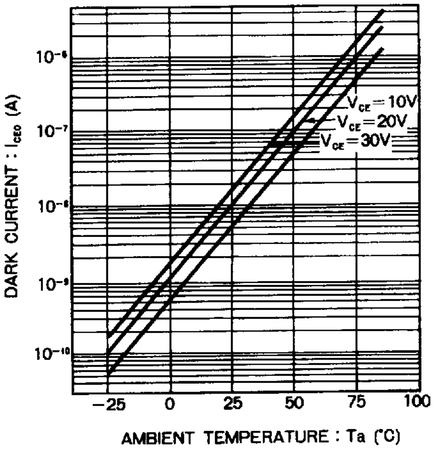


Figure 1

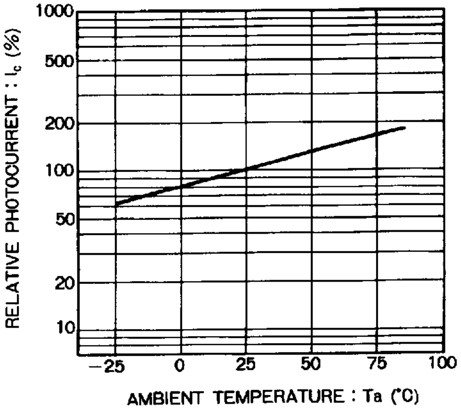


Figure 2

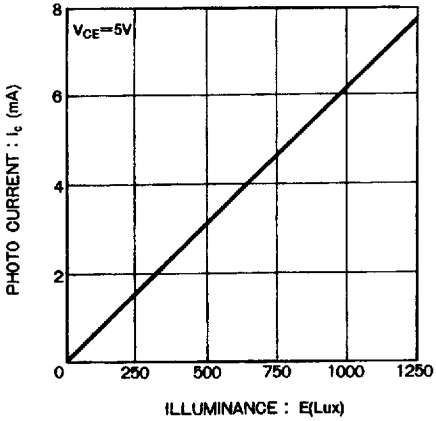


Figure 3

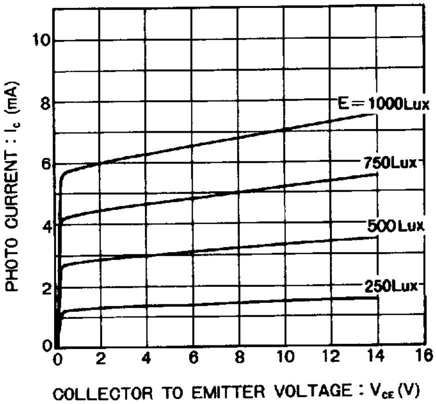


Figure 4

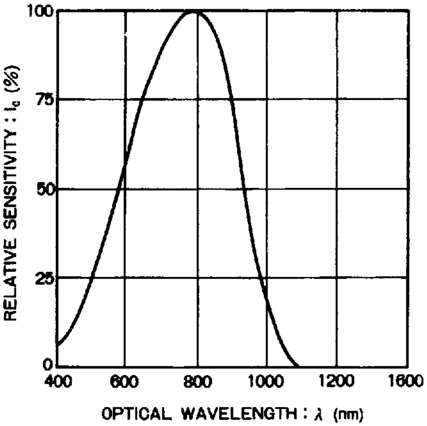


Figure 5

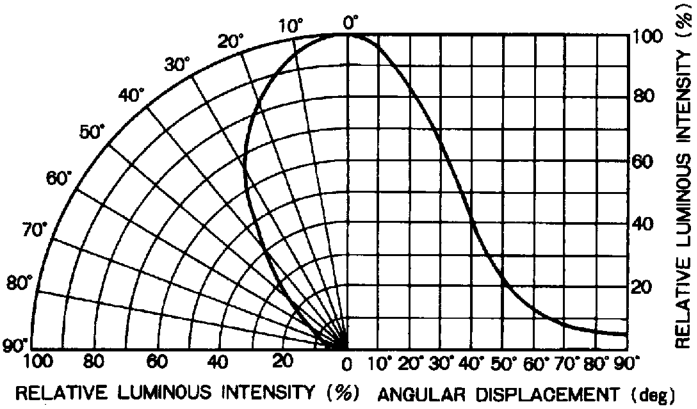


Figure 6