

Silicon NPN Phototransistor

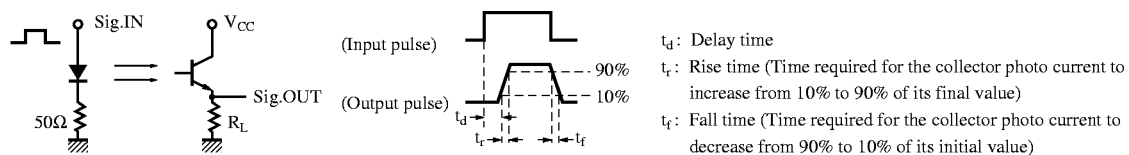
■ Features

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- Unit : mm
- Top View Dimensions:
- Width: 5.08 ± 0.15
 - Height: 4.8 max.
 - Pin Diameter: $\phi 0.5 \pm 0.05$
 - Pin Pitch: 2.54
 - Pin Spacing: 2.67 ± 0.15
 - Overall Height: 16.0 ± 1.0
- Bottom View Dimensions:
- Outer Diameter: 4.8 ± 0.15
 - Inner Diameter: 2.03
 - Pin 1 Position: $45^\circ \pm 3^\circ$
 - Pin 2 Position: 1.27
- Legend:
- 1: Emitter
 - 2: Base
 - 2: Collector

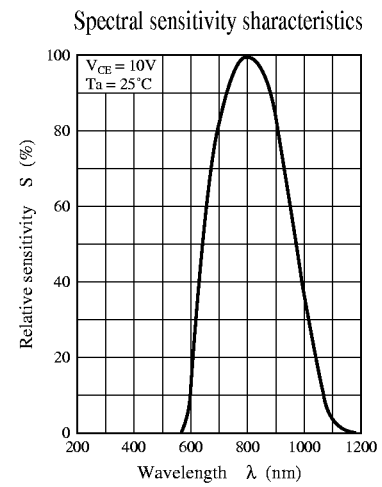
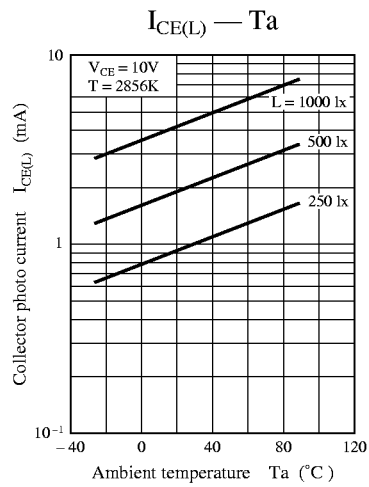
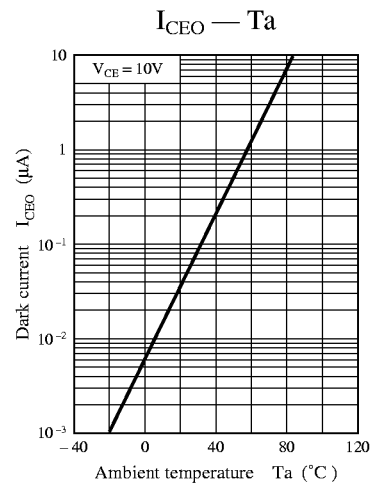
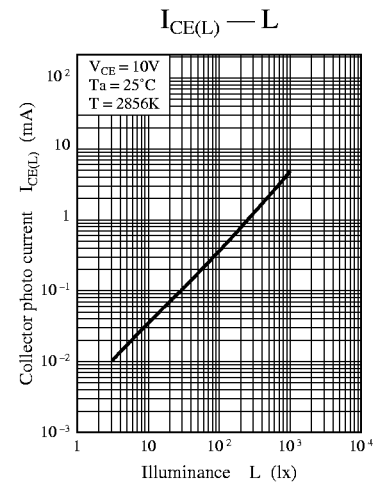
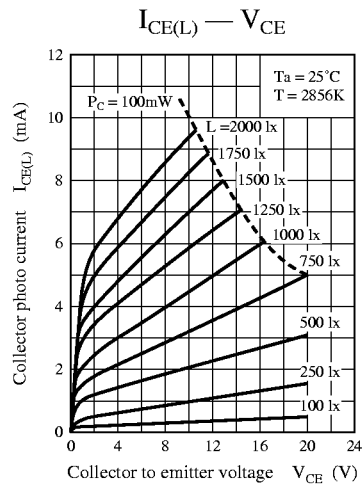
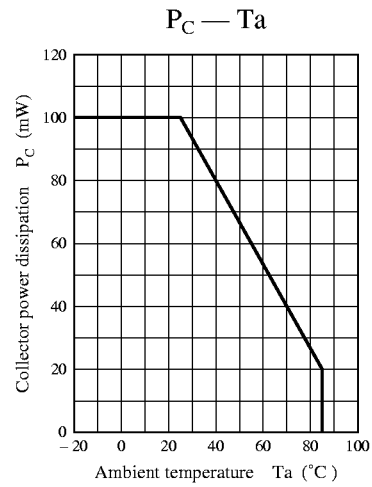
Parameter	Symbol	Ratings	Unit
Collector to emitter voltage	V_{CEO}	20	V
Collector to base voltage	V_{CBO}	30	V
Emitter to collector voltage	V_{ECO}	5	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	20	mA
Collector power dissipation	P_C	100	mW
Operating ambient temperature	T_{opr}	-25 to +85	°C
Storage temperature	T_{stg}	-30 to +100	°C

Parameter	Symbol	Conditions	min	typ	max	Unit
Dark current	I_{CEO}	$V_{CE} = 10V$		0.05	1	μA
Collector photo current	$I_{CE(L)}$	$V_{CE} = 10V, L = 500\text{ lx}^{*1}$	0.8	2		mA
Peak sensitivity wavelength	λ_P	$V_{CE} = 10V$		800		nm
Acceptance half angle	θ	Measured from the optical axis to the half power point		80		deg.
Rise time	t_r^{*2}	$V_{CC} = 10V, I_{CE(L)} = 5mA$		3	10	μs
Fall time	t_f^{*2}	$R_L = 100\Omega$		3	10	μs
Collector saturation voltage	$V_{CE(sat)}$	$I_{CE(L)} = 1mA, L = 1000\text{ lx}^{*1}$		0.25	0.5	V

*2 Switching time measurement circuit



Panasonic



Directivity characteristics

