



## Peak Sensitivity Wavelength: 880nm

The PTF080D1 is a photo transistor in a 3mm clear plastic package. It is well suited for high reliability and high speed applications.

### FEATURES

- > High Reliability in Demanding Environments
- > Wide Angular Response
- > Compact

### APPLICATIONS

- > Optical Switches
- > Edge Sensing
- > Fiber Optical Communications
- > Smoke Detectors



## Absolute Maximum Ratings (Ta=25°C)



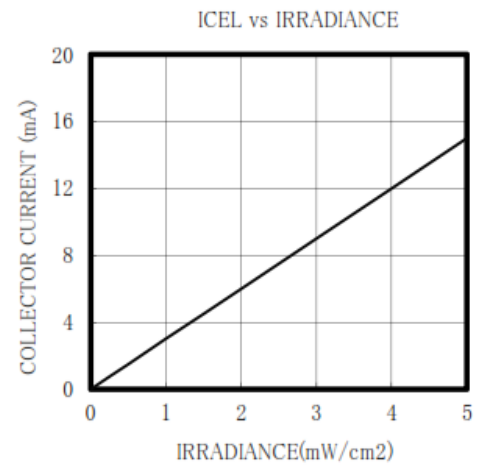
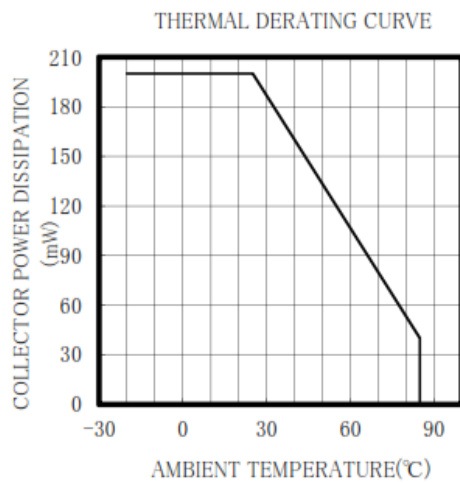
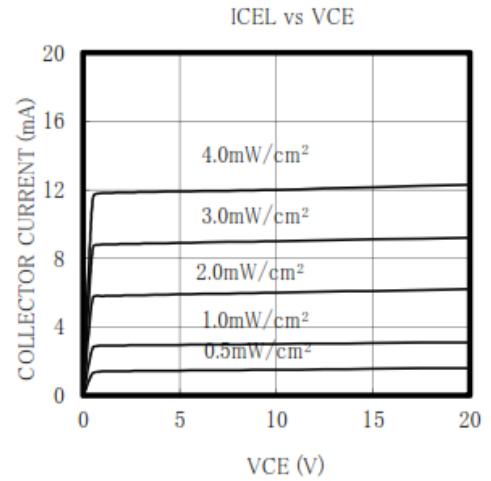
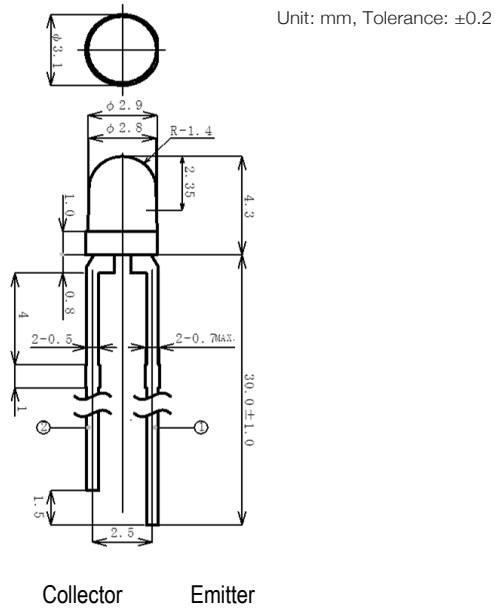
ITEMS	SYMBOL	RATINGS	UNIT
Collector-Emitter Voltage	V <sub>ceo</sub>	30	V
Emitter-Collector Voltage	V <sub>eco</sub>	5	V
Collector Current	I <sub>c</sub>	50	mA
Collector Power Dissipation	P <sub>c</sub>	200	mW
Operating Temperature Range	T <sub>opr</sub>	-20 to 85	°C
Storage Temperature Range	T <sub>stg</sub>	-30 to 100	°C
Junction Temperature	T <sub>j</sub>	100	°C
Lead Soldering Temperature *1	T <sub>ls</sub>	260	°C

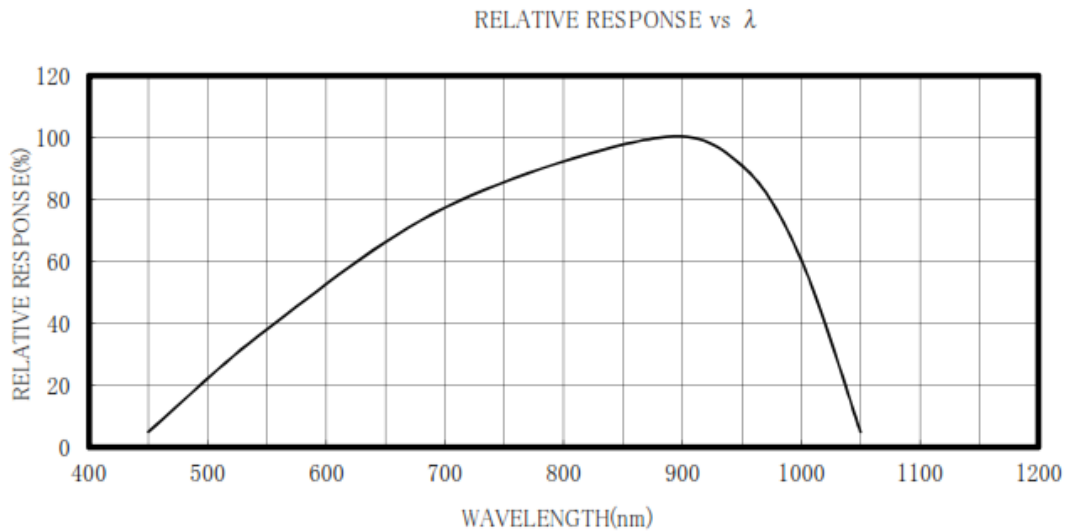
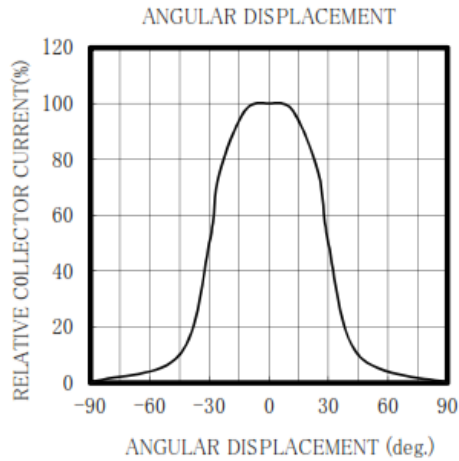
\*1: Time 5 Sec max, Position: Up to 3mm from the body.

## Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Collector Emitter Current	I <sub>cel</sub>	V <sub>ce</sub> =10V, L=0.5mW/cm <sup>2</sup> *1	--	1.5	--	mA
Collector Dark Current	I <sub>ceo</sub>	V <sub>ce</sub> =10V	--	--	100	nA
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =0.2mA, L=5.0mW/cm <sup>2</sup> *1	--	0.2	--	V
Spectral Sensitivity	λ	--	--	450~1050	--	nm
Peak Sensitivity Wavelength	λ <sub>p</sub>	--	--	880	--	nm
Switching Time	T <sub>r</sub> , T <sub>f</sub>	R <sub>L</sub> =1000Ω, V <sub>c</sub> =5V, I <sub>c</sub> =1mA	--	20, 20	--	μs
Angular Response	Θ	--	--	±30	--	deg

\*1: Color Temperature=2870°K Standard Tungsten Lamp





The information contained herein is subject to change without notice.

2018-08-07