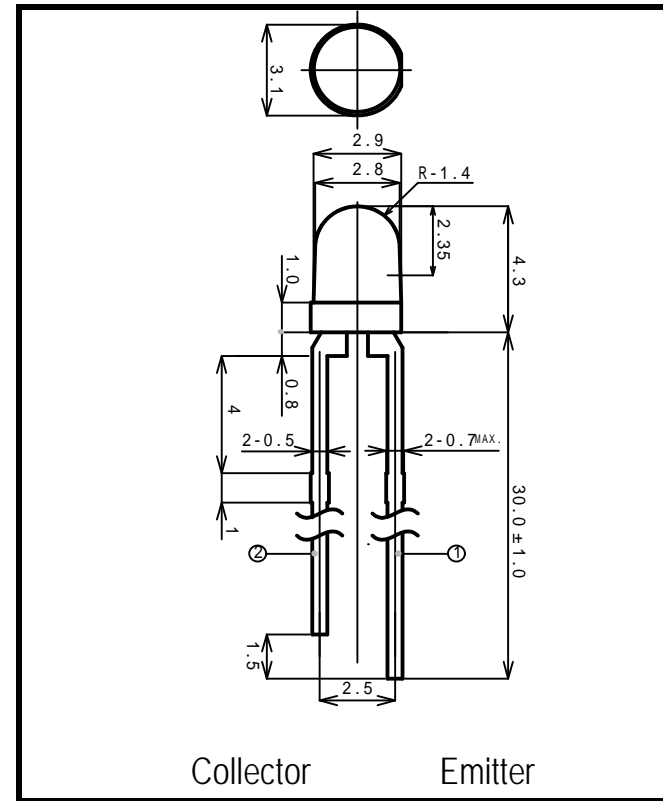


# PTF080D1

# Photo Transistor



Collector Emitter  
Dimensions (Unit:mm)

FEATURES • High Reliability in Demanding Environments

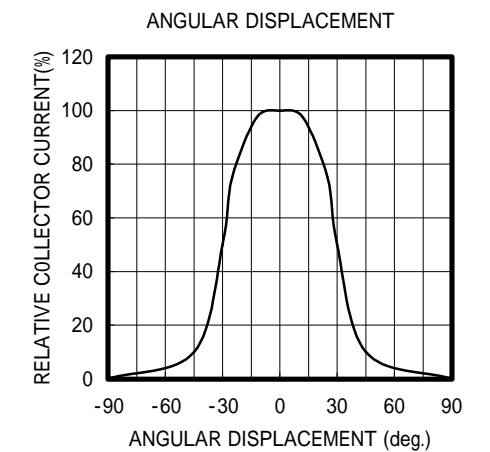
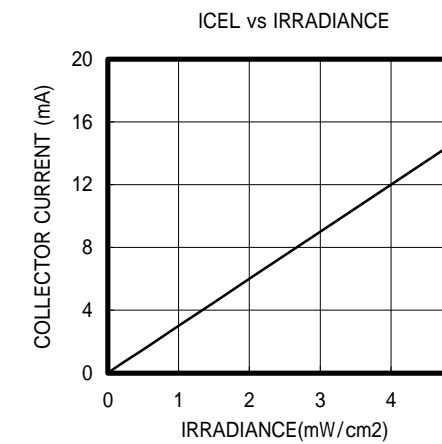
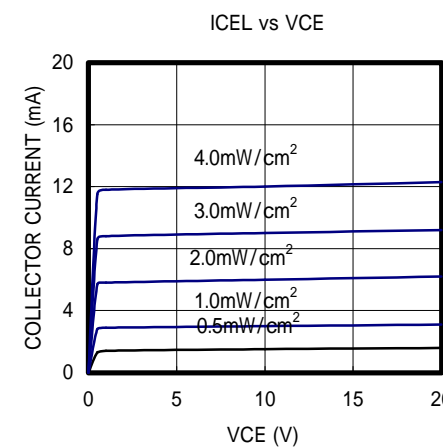
- Wide Angular Response
- Compact

APPLICATIONS • Optical Switches  
• Edge Sensing  
• Fiber Optical Communications  
• Smoke Detectors

## 2. ELECTRICAL & OPTICAL CHARACTERISTICS (Ta=25 °C)

ITEM	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>		1.5		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>		0.2		V
Spectral sensitivity			450 ~ 1050			nm
Peak Sensitivity Wave Length	λ <sub>p</sub>			880		nm
Switching time (Rise Time)	T <sub>r</sub>	R <sub>L</sub> =1000 Ω, V <sub>cc</sub> =5V, I <sub>c</sub> =1mA		20.0		μs
Switching time (Fall Time)	T <sub>f</sub>	R <sub>L</sub> =1000 Ω, V <sub>cc</sub> =5V, I <sub>c</sub> =1mA		20.0		μs
Angular Response				±30		deg

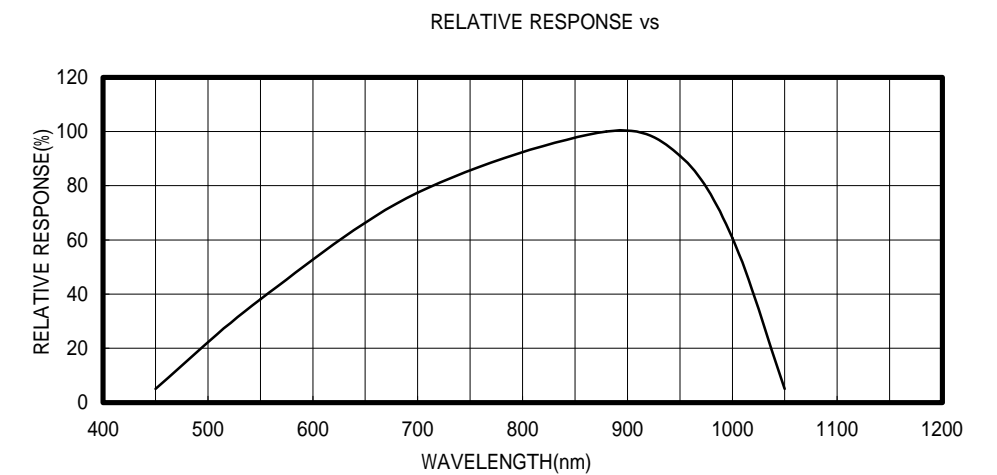
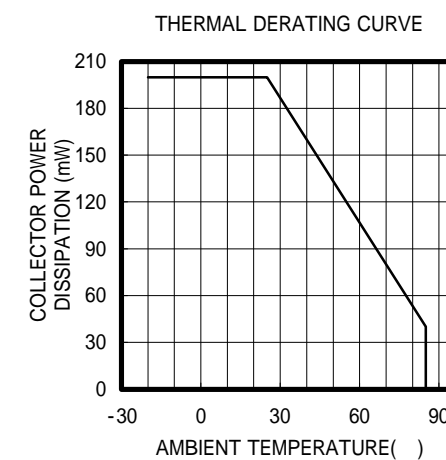
Color Temperature=2870°K Standard Tungsten Lump



## 1. ABSOLUTE MAXIMUM RATINGS (Ta=25 °C)

ITEM	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 Temp.	T <sub>opr</sub>	-20 TO 85	
Storage Temp.	T <sub>stg</sub>	-30 TO 100	
Junction Temp.	T <sub>j</sub>	100	
Lead Soldering Temp.*	T <sub>ls</sub>	260	

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



OPTRANS

2-6-11 MASUKATA, TAMA-KU, KAWASAKI 214-0032, JAPAN  
TEL.81(44)932-6491 / FAX.81(44)932-8281  
E-mail: oprans@mb.kcom.ne.jp