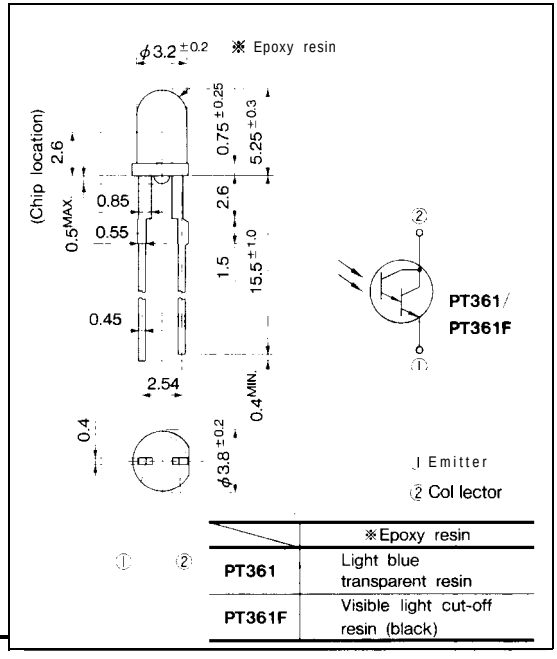
PT361/PT361F

Compact Type **Intermediate** Acceptance Phototransistor

■ Features

1. ϕ3.2mm compact epoxy resin package
2. High sensitivity
   (I_C: MIN. 0.1mA at E_V=2lx)
3. Intermediate acceptance (A θ: TYP. ± 20)
4. Lead pins space :2.54mm
5. Visible light cut-off type : PT361 F

■ Outline Dimensions (Unit : mm)



	※Epoxy resin
PT361	Light blue transparent resin
PT361F	Visible light cut-off resin (black)

■ **Applications**

1. VCRs, Video cameras
2. Floppy disk drives
3. Optoelectronic switches

■ Absolute Maximum Ratings (Ta= 25°C)

Parameter	Symbol	Rating	Unit
Collector -emitter voltage	V_{CEO}	35	V
Emitter-collector voltage	V_{ECO}	6	V
Collector current	I_C	50	mA
Collector power dissipation	P_C	50	mW
operating temperature	T_{opr}	−25 to +85	℃
Storage temperature	T_{stg}	−25 to +85	℃
*1 Soldering temperature	T_{sol}	260	℃

*1 For 5 seconds at the position of 2.6mm from the bottom face of resin package

■ **Electro-optical** Characteristics (Ta=25℃)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
*2 Collector current		I_C	V_{CE}=10V, E_V=2lx(E_e=0.01mW/cm²)	0.1	0.2	0.467	mA
Collector dark current		I_{CEO}	V_{CE}=10V, E_e=0			10^{-6}	A
*2 Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=2.5mA, E_e=1mW/cm²	−	0.8	1.0	V
Peak sensitivity wavelength	PT361	λ_P		−	800	−	nm
	PT361F			−	860	−	nm
Response time	Rise time	t_r	V_{CE}=2V, I_C=10mA	−	100	400	μs
	Fall time	t_f	R_L=100Ω		100	400	

*2 E_V,E_e: Illuminance ,irradiance by CIE standard light source A (tungsten lamp)

Fig. 1 Collector Power Dissipation vs. Ambient Temperature

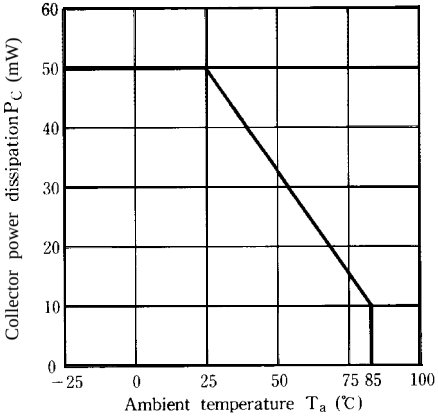


Fig. 2 Collector Dark Current vs. Ambient Temperature

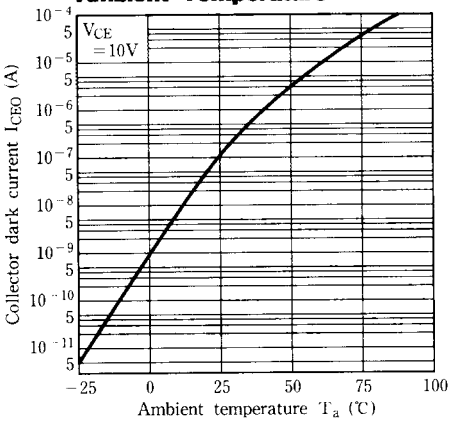


Fig. 3 Relative Collector Current vs. Ambient Temperature

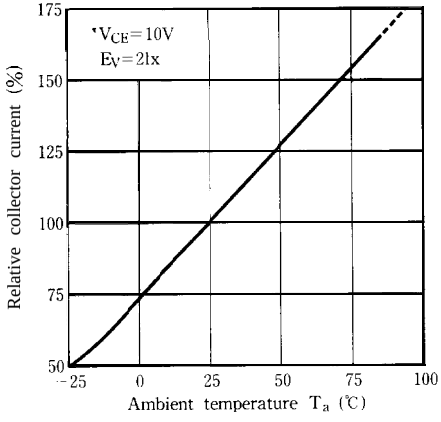


Fig. 4 Collector Current vs. Irradiance

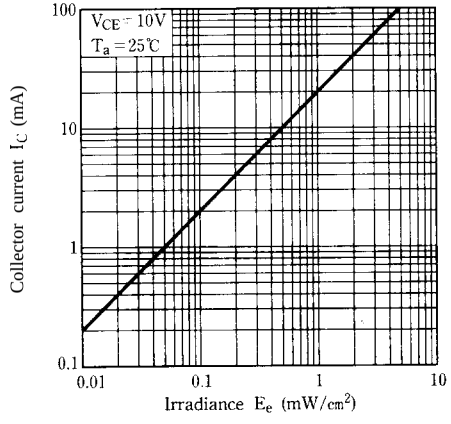


Fig. 5 Collector Current vs. Collector-emitter Voltage

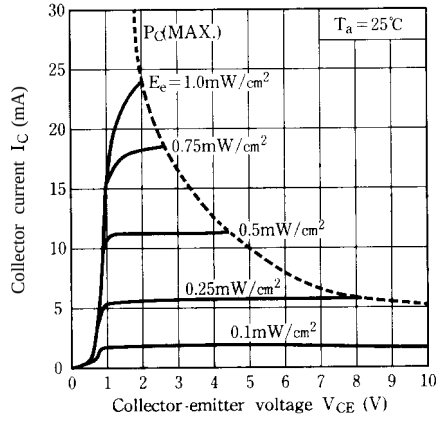


Fig. 6 Spectral Sensitivity

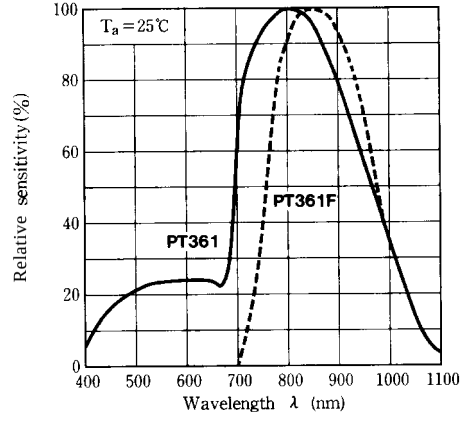
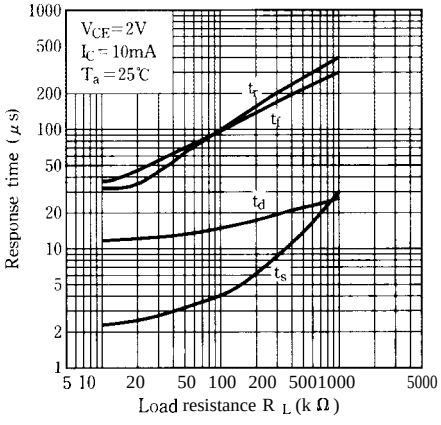


Fig. 7 Response Time vs. Load Resistance



Test Circuit for Response Time

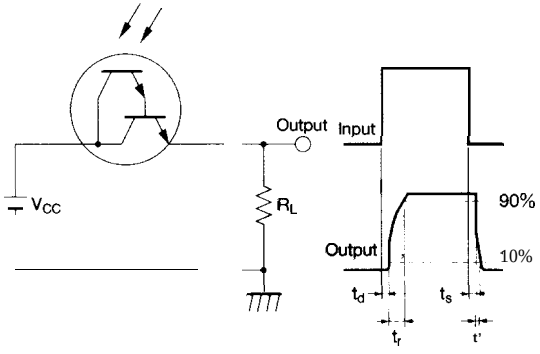


Fig. 8 Sensitivity Diagram (T_a=25℃)

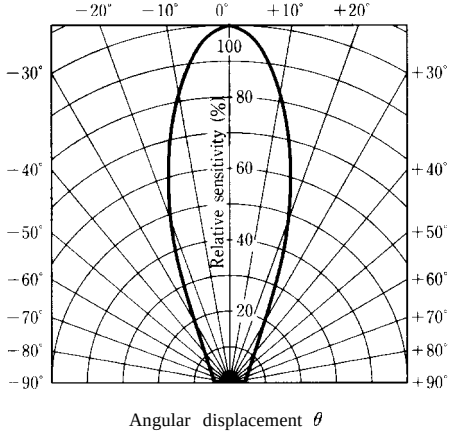
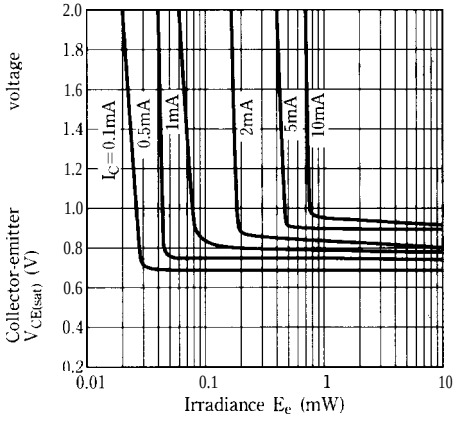


Fig. 9 Collector-emitter Saturation Voltage vs. Irradiance



● Please refer to the chapter “Precautions for Use.” (Page 78 to 93)