

PT361/PT361F

Compact Type Intermediate
acceptance Phototransistor

T-41-6

■ Features

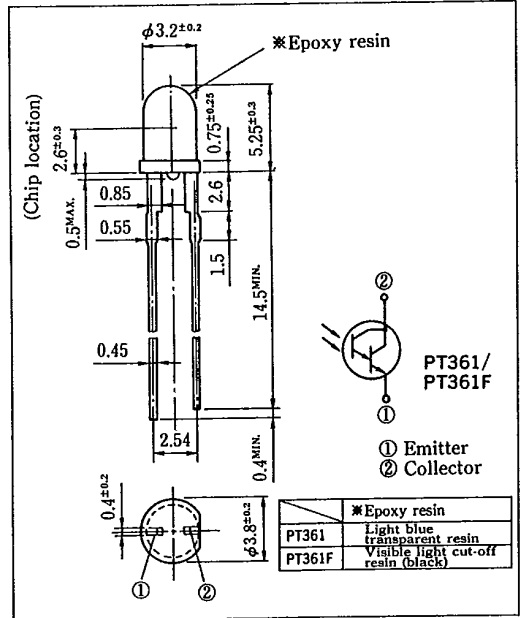
1. $\phi 3.2$ mm compact epoxy resin package
2. High sensitivity
(I_c : MIN. 0.1mA at $E_v = 2lx$)
3. Intermediate acceptance ($\Delta\theta$: TYP. $\pm 20^\circ$)
4. Lead pins space : 2.54mm
5. Visible light cut-off type : PT361F

■ Applications

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

■ Outline Dimensions

(Unit : mm)



■ Absolute Maximum Ratings

($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Collector-emitter voltage	V_{CE0}	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}	$-25 \sim +85$	$^\circ\text{C}$
Storage temperature	T_{stg}	$-25 \sim +85$	$^\circ\text{C}$
*1 Soldering temperature	T_{sol}	260	$^\circ\text{C}$

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

■ Electro-optical Characteristics

($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
*2 Collector current	I_c	$V_{CE} = 10\text{V}$, $E_v = 2 \text{ lx}$ ($E_e = 0.01\text{mW}/\text{cm}^2$)	0.1	0.2	0.467	mA
Collector dark current	I_{CE0}	$V_{CE} = 10\text{V}$, $E_e = 0$	—	—	10^{-6}	A
*2 Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_c = 2.5\text{mA}$, $E_e = 1\text{mW}/\text{cm}^2$	—	0.8	1.0	V
Peak sensitivity wavelength	PT361	λ_p	—	800	—	nm
	PT361F		—	860	—	nm
Response time (Rise)	t_r	$V_{CE} = 2\text{V}$, $I_c = 10\text{mA}$	—	100	400	μs
Response time (Fall)	t_f	$R_L = 100\Omega$	—	100	400	

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

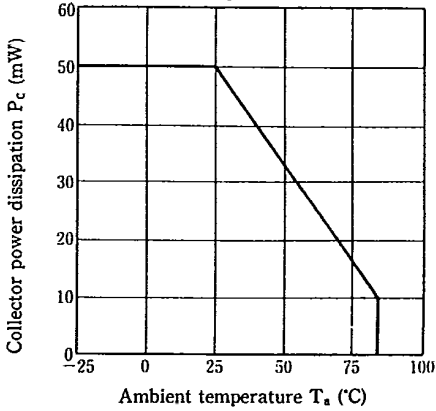
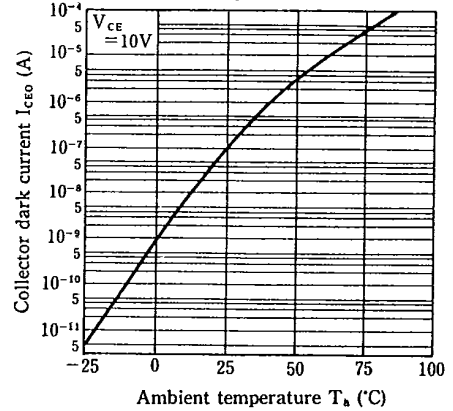
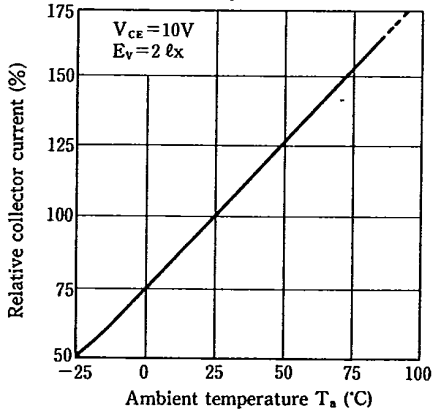
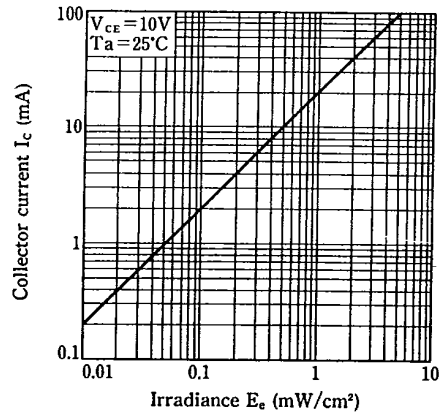
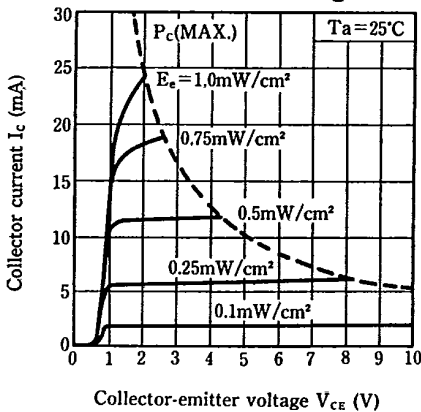
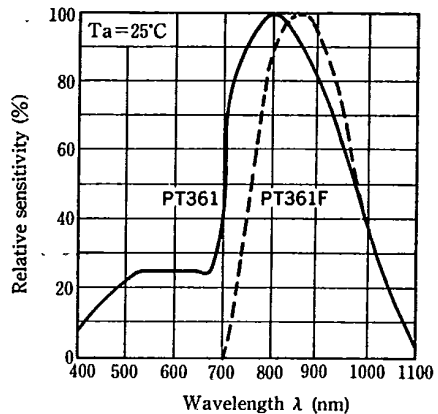
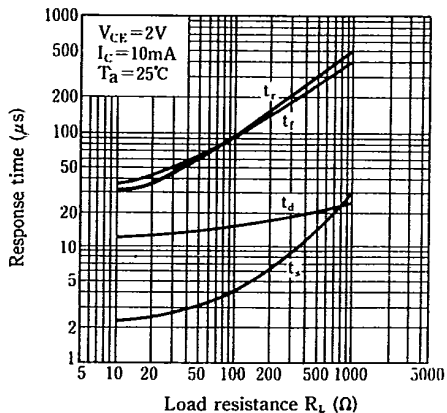
Fig. 1 Collector Power Dissipation vs. Ambient Temperature**Fig. 2 Collector Dark Current vs. Ambient Temperature****Fig. 3 Relative Collector Current vs. Ambient Temperature****Fig. 4 Collector Current vs. Irradiance****Fig. 5 Collector Current vs. Collector-emitter Voltage****Fig. 6 Spectral Sensitivity**

Fig. 7 Response Time vs. Load Resistance



Test Circuit for Response Time

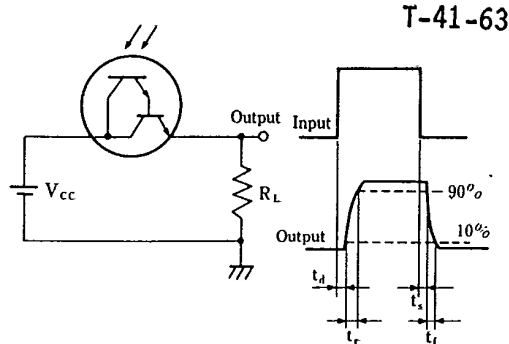


Fig. 8 Sensitivity Diagram ($T_A = 25^\circ C$)

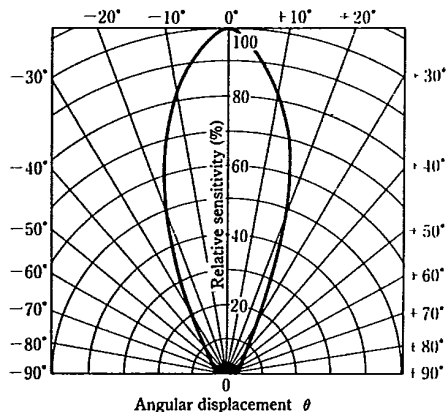


Fig. 9 Collector-emitter Saturation Voltage vs. Irradiance

