

PT4110/PT41 IOF

Thin, **Flat Type** Phototransistor

■ Features

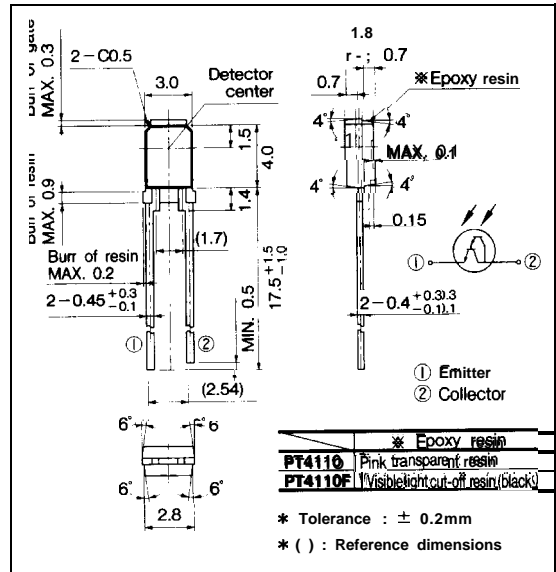
1. Compact and thin flat package
(Capacitance : 1/3 or less than **PT410**)
2. Wide acceptance
($\Delta\theta : \pm 70^\circ$)
3. Visible light cut-off type (PT4110F)

■ Applications

1. Optoelectronic switches
2. Encoders

■ Outline Dimensions

(Unit : mm)



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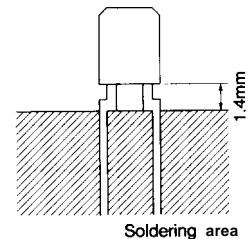
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■ Absolute Maximum Ratings

(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	75	mW
Operating temperature	T_{opr}	-25 to +85	°C
Storage temperature	T_{stg}	-40 to +85	°C
* Soldering temperature	T_{sol}	260	°C



*1 For MAX, 5 wends at the position of 1.4mm from the resin edge

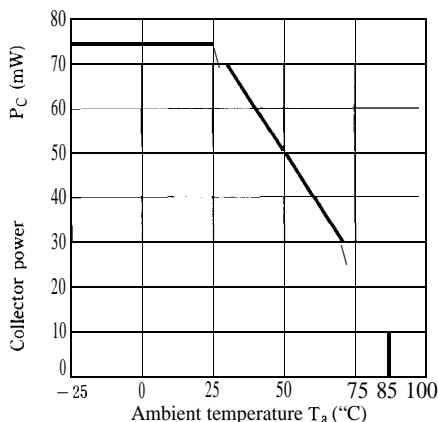
■ Electro-optical Characteristics

(Ta= 25°C)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Collector current	PT4110	$*2E_v = 1\text{mW}/\text{cm}^2$ $V_{CE} = 5\text{V}$	4.0	—	25	mA
	PT4110F		t 2.5	—	19	mA
Collector dark current	I_{CEO}	$E_e = 0, V_{CE} = 10\text{V}$		—	1.0	μA
Collector -emitter saturation voltage	$V_{CE(\text{sat})}$	$*2E_v = 1\text{mW}/\text{cm}^2$ $I_C = 2.5\text{mA}$		—	1.2	V
Collector -emitter breakdown voltage	BV_{CEO}	$I_C = 0.1\text{mA}$ $*2E_e = 0$	35	—	—	V
Emitter-collector breakdown voltage	BV_{ECO}	$I_E = 0.01\text{mA}$ $*2E_e = 0$	6	—	—	V
Peak sensitivity wavelength	λ_P		—	860		
Response time	Rise time	$V_{CE} = 2\text{V}, I_C = 10\text{mA}$ $R_L = 100\Omega$	—	60		μs
	Fall time		—	53		μs
Half sensitivity angle	$\Delta\theta$		—	± 70		

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

Fig. 1 Collector Power Dissipation vs. Ambient Temperature



- Please refer to the chapter "Precautions for Use" (Page 78 to 93)