

GP2S700HCP

Long Focal Distance, Subminiature Photointerrupter

■ Features

1. Ultra compact SMD package
2. Long focal distance type (focal distance:3mm)
3. Effective detection distance:1.2 to 5.5mm

■ Applications

1. Copiers
2. Facsimiles
3. Printers

■ Absolute Maximum Ratings

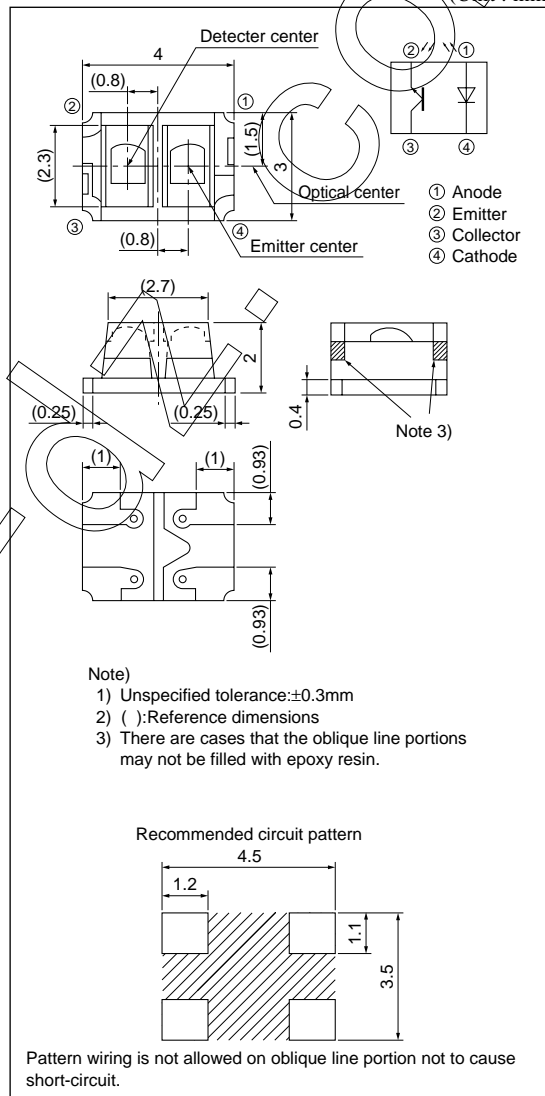
(T_a=25°C)

	Parameter	Symbol	Rating	Unit
Input	Forward current	I _F	50	mA
	Reverse voltage	V _R	6	V
	Power dissipation	P _D	75	mW
Output	Collector-emitter voltage	V _{CEO}	35	V
	Emitter-collector voltage	V _{ECO}	6	V
	Collector current	I _C	20	mA
	Collector power dissipation	P _C	75	mW
	Total power dissipation	P _{tot}	100	mW
	Operating temperature	T _{opr}	-25 to +85	°C
	Storage temperature	T _{stg}	-40 to +100	°C
	*1 Soldering temperature	T _{sol}	260	°C

*1 For 5s

■ Outline Dimensions

(Unit : mm)



■ Electro-optical Characteristics

(T_a=25°C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V _F	I _F =20mA	—	1.2	1.4	V
	Reverse current	I _R	V _R =6V	—	—	10	μA
Output	Collector dark current	I _{CEO}	V _{CE} =20V	—	1	100	nA
Transfer characteristics	Collector current	I _C	V _{CE} =2V, I _F =4mA	60	—	410	μA
	*2 Leak current	I _{LEAK}	V _{CE} =2V, I _F =4mA	—	—	700	nA
	*3 Response time	Rise time	V _{CE} =2V, I _C =100μA R _L =1 000Ω, d=4mm	—	20	100	μs
		Fall time		—	20	100	μs

*2 No reflective object
*3 “d” is glass thickness of reflective mirror

Fig.1 Measuring Configuration of Collector Current

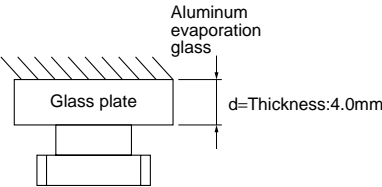


Fig.2 Test Circuit for Response Time

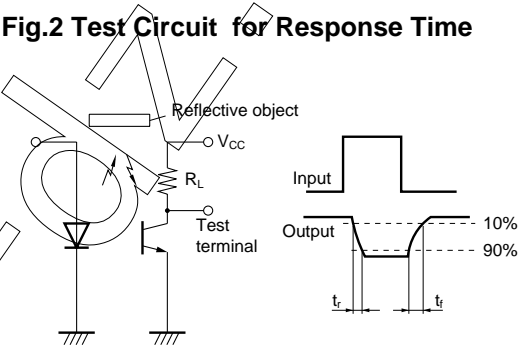


Fig.3 Forward Current vs. Ambient Temperature

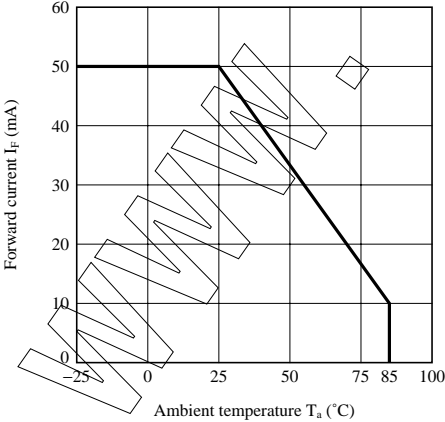
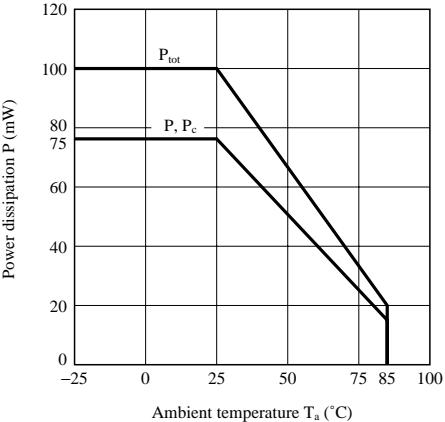
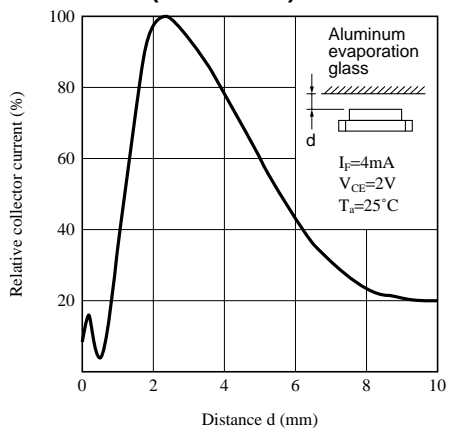


Fig.4 Power Dissipation vs. Ambient Temperature



**Fig.5 Relative Collector Current vs.
Distance (Reference)**



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