GP1S093HCZ SHARP

GP1S093HCZ

■ Features

- 1. General purpose
- 2. Low profile(Height:2.9mm)
- 3. Wide gap(Gap width: 2.0mm)
- 4. Slit width(Detector side):0.3mm

■ Absolute Maximum Patings

■ Applications

- 1. Cameras
- 2. CD-ROM drives
- 3. VCR

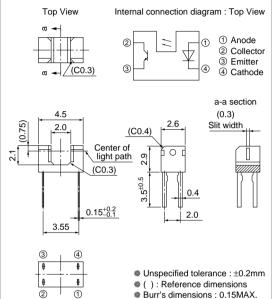
Absolute Maximum Ratings (1a=25°C							
	Parameter	Symbol	Rating	Unit			
	Forward current	I_{F}	50	mA			
Input	Reverse voltage	VR	6	V			
	Power dissipation	P	75	mW			
	Collector-emitter voltage	Vceo	35	V			
Outmut	Emitter-collector voltage	Veco	6	V			
Output	Collector current	Ic	20	mA			
	Collector power dissipation	Pc	75	mW			
	Total power dissipation		100	mW			
	Operating temperature	Topr	-25 to +85	°C			
	Storage temperature		-40 to +100	°C			
*	*1 Soldering temperature		260	°C			

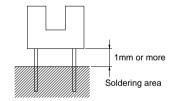
^{*1} For MAX. 5s

Subminiature, Low Profile, **Transmissive Type Photointerrupter**

■ Outline Dimensions

(Unit: mm)





(Ta	-25	$\circ C$
(Ia	-23	·

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit	
Input	Forward voltage		V_{F}	I _F =20mA	-	1.2	1.4	V
	Reverse current		IR	V _R =3V	_	_	10	μΑ
Output	Collector dark current		Iceo	V _{CE} =20V	-	-	100	nA
Transfer characte-ristics	Collector current		Ic	$V_{CE}=5V$, $I_F=5mA$	100		400	μΑ
	Collector-emitter saturation voltage		V _{CE(sat)}	I _F =10mA, I _C =40μA	ı	ı	0.4	V
	Response time	Rise time	tr	Vce=5V, Ic=100μA	_	50	150	μs
		Fall time	t f	$R_L=1~000\Omega$	ı	50	150	μs

Fig.1 Forward Current vs. Ambient Temperature

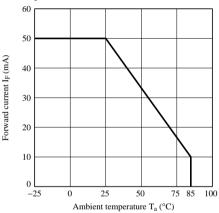


Fig.3 Forward Current vs. Forward Voltage

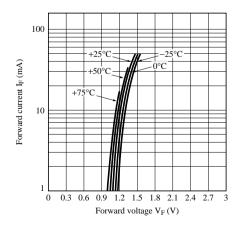


Fig.2 Power Dissipation vs. Ambient Temperature

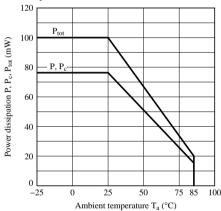
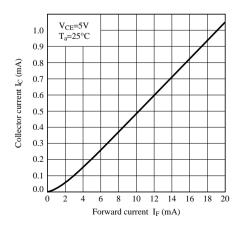


Fig.4 Collector Current vs. Forward Current



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Fig.5 Collector Current vs. Collector-emitter Voltage

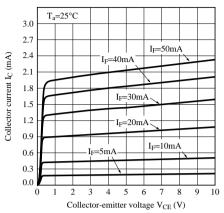


Fig.7 Collector - emitter Saturation Voltage vs. Ambient Temperature

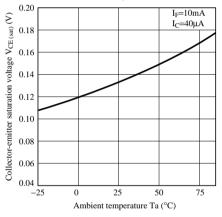


Fig.9 Response Time vs. Load Resistance

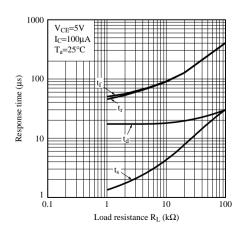


Fig.6 Relative Collector Current vs. Ambient Temperature

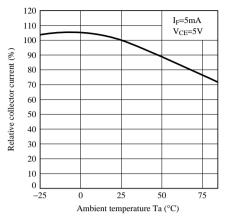


Fig.8 Collector Dark Current vs.

Ambient Temperature

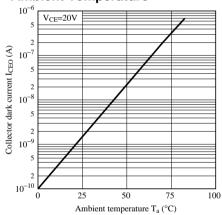
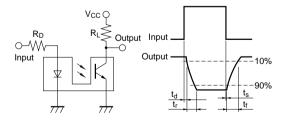


Fig.10 Test Circuit for Response Time



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Fig.11 Relative Collector Current vs. Shield Distance (1)

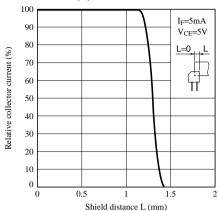
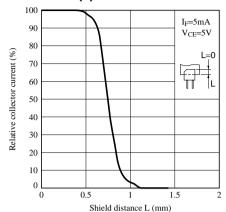


Fig.12 Relative Collector Current vs. Shield Distance (2)



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 - Industrial control
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