

## GP1S096HCZ

## Photointerrupter

Subminiature, Low height, Transmissive Type Photointerrupter

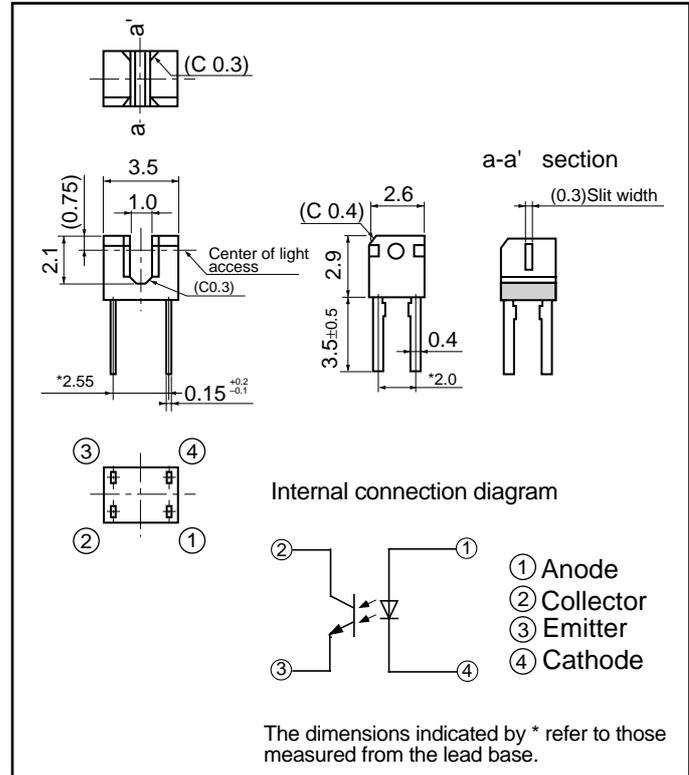
### Features

- (1) General purpose
- (2) Wide gap(Gap width: 1.0mm)
- (3) Low height(Height: 2.9mm)
- (4) Slit width(Detector side): 0.3mm

### Applications

- (1) Cameras
- (2) CD-ROM drives
- (3) DVD-ROM drives
- (4) VCR

### Outline Dimensions



### Absolute Maximum Ratings

(Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward current	$I_F$	50	mA
	Reverse voltage	$V_R$	6	V
	Power dissipation	$P$	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

(Notice)

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(Internet)

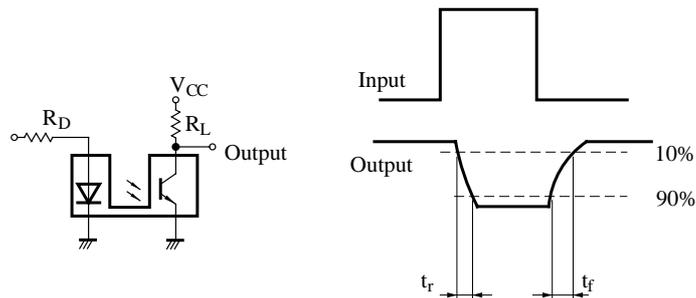
•Data for Sharp's optoelectronic/power devices is provided on internet. (Address <http://www.sharp.co.jp/ecg/>)

### ■ Electro-optical Characteristics

(Ta=25°C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit	
Input	Forward voltage	$V_F$	$I_F=20\text{mA}$	–	1.2	1.4	V	
	Reverse current	$I_R$	$V_R=3\text{V}$	–	–	10	$\mu\text{A}$	
Output	Collector dark current	$I_{CEO}$	$V_{CE}=20\text{V}$	–	–	100	nA	
Transfer characteristics	Collector current	$I_C$	$I_F=5\text{mA}, V_{CE}=5\text{V}$	100	–	400	$\mu\text{A}$	
	Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_F=10\text{mA}, I_C=40\mu\text{A}$	–	–	0.4	V	
	Response time	Rise time	$t_r$	$I_C=100\mu\text{A}, V_{CE}=5\text{V}, R_L=1\text{k}\Omega$	–	50	150	$\mu\text{s}$
		Fall time	$t_f$		–	50	150	$\mu\text{s}$

### ■ Measuring Circuit of Response Time



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