SHARP GP1S094HCZ

# GP1S094HCZ

## Subminiature, Wide gap, Transmissive Type Photointerrupter

#### **■** Features

- 1. General purpose
- 2. Wide gap (Gap width:3.0mm)
- 3. Slit width (Detector side):0.3mm

#### ■ Applications

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

#### ■ Absolute Maximum Ratings

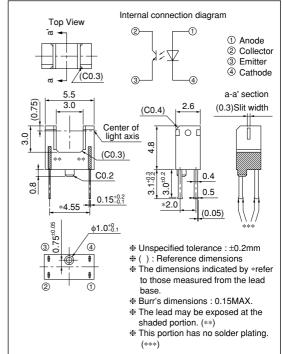
(T.:	-25	°C)
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Parameter		Symbol	Rating	Unit	
Input	Forward current	$I_{\mathrm{F}}$	50	mA	
	Reverse voltage	$V_R$	6	V	
	Power dissipation	P	75	mW	
Output	Collector-emitter voltage	$V_{CEO}$	35	V	
	Emitter-collector voltage	$V_{ECO}$	6	V	
	Collector current	$I_C$	20	mA	
	Collector power dissipation	P <sub>C</sub>	75	mW	
Total power dissipation		P <sub>tot</sub>	100	mW	
Operating temperature		Topr	-25 to +85	°C	
Storage temperature		T <sub>stg</sub>	-40 to +100	0 °C	
*1 Soldering temperature		T <sub>sol</sub>	260	°C	

<sup>\*1</sup> For MAX. 5s

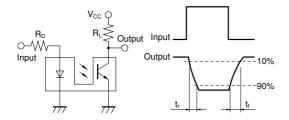
### **■** Outline Dimensions





■ Electro-optical Characteristics								
Parameter			Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage		$V_F$	$I_F=20mA$	_	1.2	1.4	V
	Reverse current		$I_R$	$V_R=3V$	_	_	10	μΑ
Output	Collector dark current		$I_{CEO}$	V <sub>CE</sub> =20V	-	_	100	nA
Transfer characte-ristics	Collector current		$I_C$	$I_F=5mA$ , $V_{CE}=5V$	40	_	400	μΑ
	Collector-emitter saturation voltage		V <sub>CE(sat)</sub>	$I_F=10mA, I_C=40\mu A$	_	_	0.4	V
	Response time	Rise time	$t_r$	$I_{C}=100\mu A, V_{CE}=5V,$	-	50	150	μs
		Fall time	$t_{\mathrm{f}}$	$R_L=1k\Omega$	_	50	150	μs

## ■ Test Circuit for Response Time



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    - --- Alarm equipment
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