Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

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

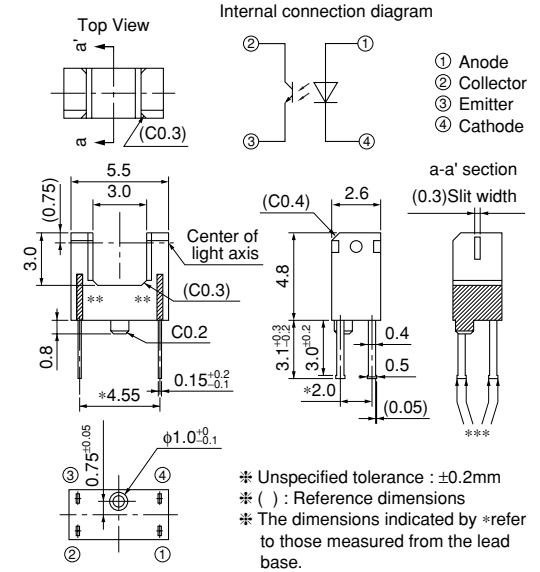
(T_a=25°C)

	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 MAX. 5s

■ Outline Dimensions

(Unit : mm)



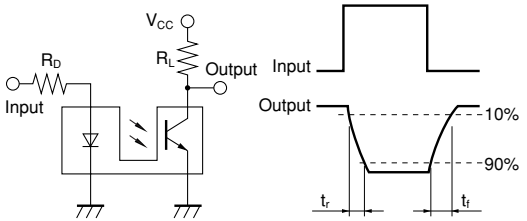
❉ Unspecified tolerance : ±0.2mm
❉ ( ) : Reference dimensions
❉ The dimensions indicated by ∗refer to those measured from the lead base.
❉ Burr's dimensions : 0.15MAX.
❉ The lead may be exposed at the shaded portion. (∗∗)
❉ This portion has no solder plating. (∗∗∗)

■ 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=3V	–	–	10	μA
Output	Collector dark current		I_{CEO}	V_{CE}=20V	–	–	100	nA
Transfer characte-ristics	Collector current		I_C	I_F=5mA, V_{CE}=5V	40	–	400	μA
	Collector-emitter saturation voltage		$V_{CE(sat)}$	I_F=10mA, I_C=40μA	–	–	0.4	V
	Response time	Rise time	t_r	I_C=100μA, V_{CE}=5V, R_L=1kΩ	–	50	150	μs
		Fall time	t_f		–	50	150	μs

■ Test Circuit for Response Time



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  (i) The devices in this publication are designed for use in general electronic equipment designs such as:
  --- Personal computers
  --- Office automation equipment
  --- Telecommunication equipment [terminal]
  --- Test and measurement equipment
  --- Industrial control
  --- Audio visual equipment
  --- Consumer electronics

  (ii) Measures such as fail-safe function and redundant design should be taken to ensure reliability and safety when SHARP devices are used for or in connection with equipment that requires higher reliability such as:
  --- Transportation control and safety equipment (i.e., aircraft, trains, automobiles, etc.)
  --- Traffic signals
  --- Gas leakage sensor breakers
  --- Alarm equipment
  --- Various safety devices, etc.

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  --- Space applications
  --- Telecommunication equipment [trunk lines]
  --- Nuclear power control equipment
  --- Medical and other life support equipment (e.g., scuba).

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