# imall

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!



## Contact us

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Transfer charactei

Infrared light emitter diode

Photo transis

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Parameter

Forward voltage

Reverse current

Collector current

Response time

Cut-off frequency

Response time

Peak sensitivity wavelength

Collector-emitter saturation voltage

Peak light emitting wavelength

Maximum sensitivity wavelength

Rise time

Fall time

Dark current

### Photointerrupter, General type

Max.

1.6

10

0.5

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0.5

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Unit

V

μA

μA

nm

mΑ

V

μs

μs

MHz

nm

μs

nm

l⊧=50mA

 $V_{\text{CE}}=10V$ 

l⊧=50mA

Vce=5V, IF=20mA

I⊧=20mA, Ic=0.5mA

Vcc=5V, IF=20mA, RL=100Ω

\* Non-coherent Infrared light emitting diode used.

VR=5V

#### Absolute maximum ratings (Ta=25°C)

Parameter		Symbol	Limits	Unit
Input (LED)	Forward current	lF	50	mA
	Reverse voltage	VR	5	V
	Power dissipation	PD	80	mW
Output (photo- (transistor)	Collector-emitter voltage	VCEO	30	V
	Emitter-collector voltage	VECO	4.5	V
	Collector current	lc	30	mA
	Collector power dissipation	Pc	80	mW
Operating temperature		Topr	-25 to +85	°C
Storage temperature		Tstg	-40 to +85	°C
Soldering temperture		Tsol	260/3 *	°C/sec
* 1mm from the body bottom.				

Electrical and optical characteristics (Ta=25°C)

Symbol

VF

lв

ICEO

λΡ

lc

VCE(sat)

tr

tf

fc

λP

tr∙tf

λP

Min.

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0.5

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Тур.

1.3

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800

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0.1

10

10

1

950

10

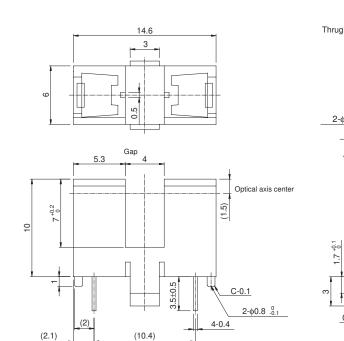
800

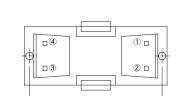
Applications Facsimiles AV equipment Features

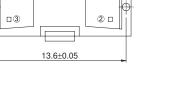
Conditions

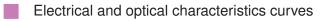
 $Vcc{=}5V,~lc{=}1mA,~RL{=}100\Omega$  \* This product is not designed to be protected against electromagnetic wave.

#### External dimensions (Unit : mm)









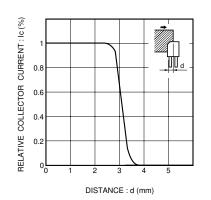


Fig.1 Relative output vs. distance (I)

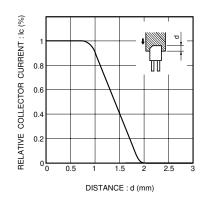


Fig.4 Relative output vs. distance (II)

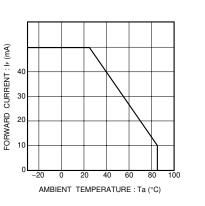
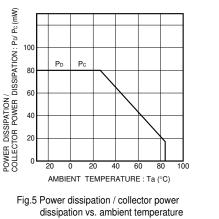


Fig.2 Forward current falloff



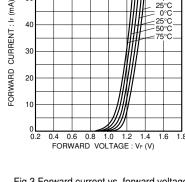


Fig.3 Forward current vs. forward voltage

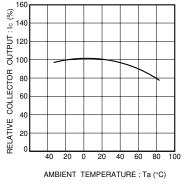


Fig.6 Relative output vs. ambient temperature

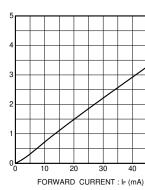


Fig.7 Collector current vs. forward current

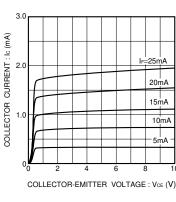


Fig.10 Output characteristics

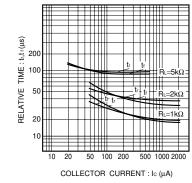
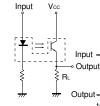
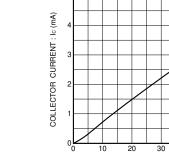


Fig.8 Response time vs. collector current



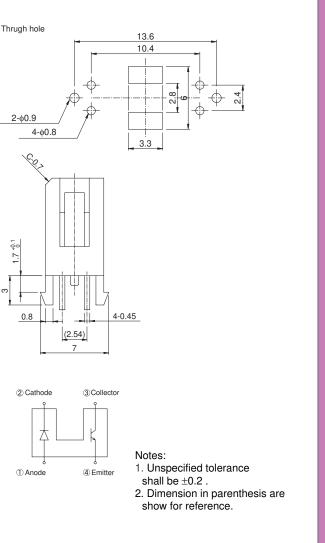
- td : Delay time
- tr :Rise time (time for output current to rise from
- 10% to 90% of peak current)
- tr :Fall time (time for output current to fall from 90% to 10% of peak current)



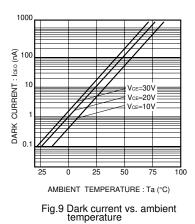


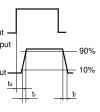












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