

# LG214D

The LG214D photointerrupter combine high output GaAs IRED with Photo IC. The sensor makes possible easy development of object detecting systems with high performance,high reliability and small equipment size.

## FEATURES

- PWB direct mount type
- GAP : 3.6mm
- Double-side screw-mount (adjustable mounting position)

## APPLICATIONS

- Plotters
- Facsimiles
- Auto stampers
- Ticket vending machines

## MAXIMUM RATINGS

(Ta=25°C)

Item	Symbol	Rating	Unit	
Input	Power dissipation	$P_D$	100	mW
	Forward current	$I_F$	60	mA
	Reverse voltage	$V_R$	5	V
	Pulse forward current <sup>*1</sup>	$I_{FP}$	1	A
Output	Supply voltage	$V_{CC}$	17	V
	Low level output current	$I_{OL}$	30	mA
	Power dissipation	$P_O$	200	mW
Operating temp. <sup>*2</sup>	Topr.	-20 ~ +85	°C	
Storage temp. <sup>*2</sup>	Tstg.	-30 ~ +85	°C	
Soldering temp. <sup>*3</sup>	Tsol.	260	°C	

\*1. Pulse width :  $t_w \leq 100\mu s$ , period T=10ms

\*2. No icebound or dew

\*3. For MAX. 5 seconds at the position of 1mm from the resin edge.

## ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25°C)

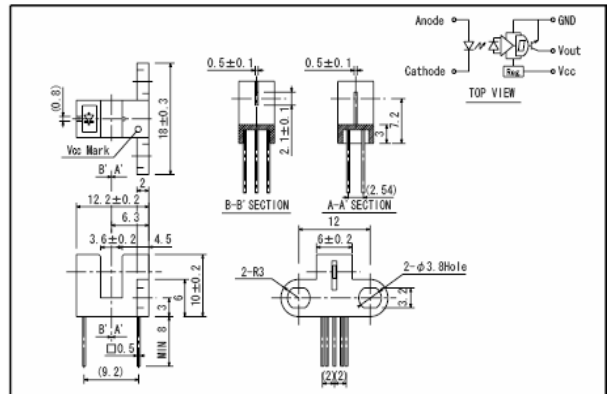
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Input	Forward voltage	$I_F=20mA$	-	1.2	1.4	V
	Reverse current	$V_R=5V$	-	-	10	$\mu A$
	Peak wavelength	$I_F=20mA$	-	940	-	nm
Output	Operating supply voltage	-	4.5	-	16.5	V
	Low level output voltage	$V_{CC}=5V, I_F=20mA, I_{OL}=16mA$	-	0.3	0.4	V
	High level output voltage	$V_{CC}=5V, I_F=0mA, R_L=10k\Omega$	4.5	-	-	V
	Low level supply current	$V_{CC}=5V, I_F=20mA, R_L=10k\Omega$	-	3	10	mA
	High level supply current	$V_{CC}=5V, I_F=0mA, R_L=10k\Omega$	-	3	10	mA
Trans- mission	L→H threshold input current <sup>*4</sup>	$V_{CC}=5V, R_L=10k\Omega$	-	5	12	mA
	Hysteresis <sup>*5</sup>	$V_{CC}=5V, R_L=10k\Omega$	0.50	0.80	0.95	-
	L→H propagation time	$V_{CC}=5V, I_F=18mA, R_L=3.3k\Omega$	-	1	-	$\mu s$
	H→L propagation time		-	3	-	$\mu s$
	Rise time		-	0.6	-	$\mu s$
Fall time	-		0.02	-	$\mu s$	

\*4.  $I_{FLH}$  represents forward current when output changes from low to high.

\*5.  $I_{FHL}$  represents forward current when output changes from high to low.

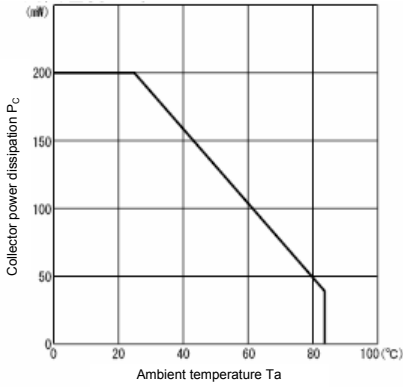
## DIMENSIONS

(Unit : mm)

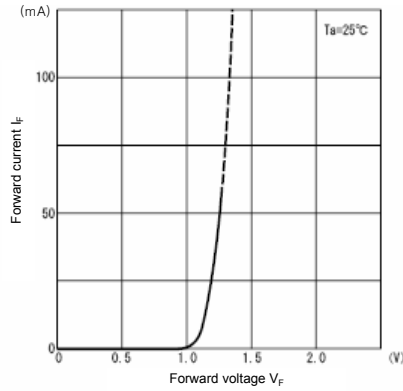


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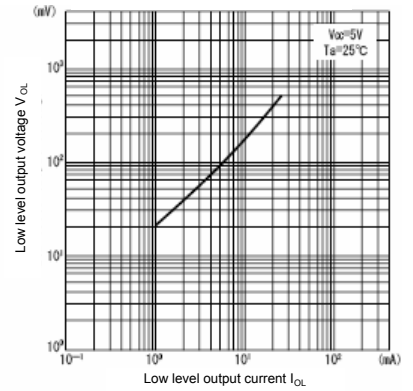
**Collector power dissipation Vs. Ambient temperature**



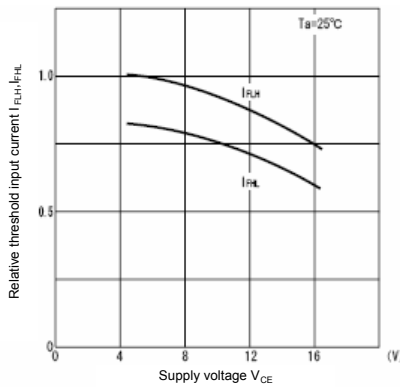
**Forward current Vs. Forward voltage**



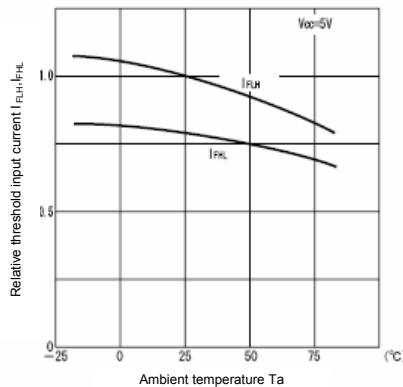
**Low level output voltage Vs. Low level output current**



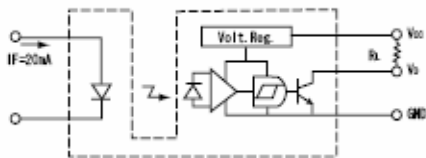
**Relative threshold input current Vs. Supply voltage**



**Relative threshold input current Vs. Ambient temperature**



Measurement of high level output voltage



Measurement of propagation time

