

LG - 206

The LG - 206 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

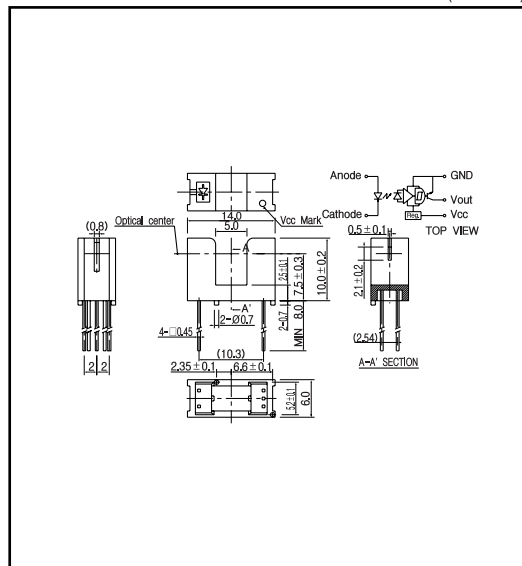
- Built - in amplifier
- Open collector output

## APPLICATIONS

- Floppy disk drives
- Copiers
- Facsimiles

## DIMENSIONS

(Unit : mm)



## MAXIMUM RATINGS

(Ta=25 )

Item		Symbol	Rating	Unit
Input	Power dissipation	$P_b$	100	mW
	Reverse voltage	$V_R$	5	V
	Forward current	$I_F$	60	mA
Output	Supply voltage	$V_{CC}$	16	V
	Low level output current	$I_{OL}$	30	mA
	Power dissipation	$P$	200	mW
	Operating temp.	$T_{opr.}$	- 20 ~ +85	
Storage temp.		$T_{stg.}$	- 30 ~ +85	
Soldering temp. <sup>-1</sup>		$T_{sol.}$	260	

\*1. For MAX. 5 seconds at the position of 1mm from the package

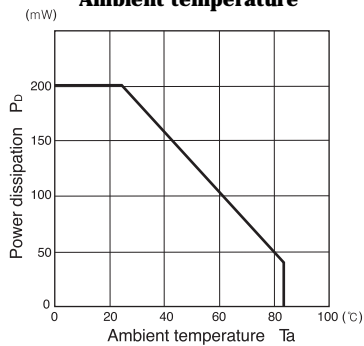
## ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25 )

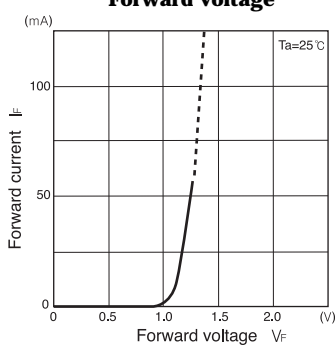
Item		Symbol	Conditions	Min.	Typ.	Max.	Unit.
Input	Forward voltage	$V_F$			1.2	1.4	V
	Reverse current	$I_R$	$V_R = 5V$			10	$\mu A$
	Peak wavelength	$\lambda_p$			940		nm
Output	Operating supply voltage range	$V_{CC}$		4.5		17	V
	Low level output voltage	$V_{OL}$	$I_{OL} = 16mA, V_{CC} = 5V, f = 0$		0.3	0.4	V
	High level output voltage <sup>2</sup>	$V_{OH}$	$I_f = 12mA, V_{CC} = 5V, R_L = 10K$	4.5			V
	Low level supply current	$I_{CCL}$	$V_{CC} = 5V, f = 0$		3	10	mA
	High level supply current	$I_{CCH}$	$V_{CC} = 5V, f = 10mA$		2	10	mA
Transmission	L <sup>3</sup> H threshold input current	$I_{FTH}$	$V_{CC} = 5V$		5	12	mA
	Hysteresis	$ I_{PHL} / I_{FLH} $	$V_{CC} = 5V$	0.60	0.83	0.98	-
	L <sup>3</sup> H propagation time <sup>3</sup>	$t_{PLH}$	$V_{CC} = 5V, f = 18mA$		1		$\mu sec.$
	H <sup>3</sup> L propagation time <sup>3</sup>	$t_{PHL}$	$R_L = 3.3K$		3		

\*2, \*3. refer to measurement diagram as right side.

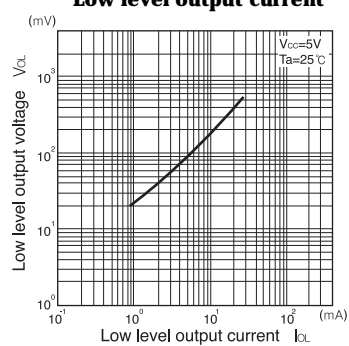
**Power dissipation Vs. Ambient temperature**



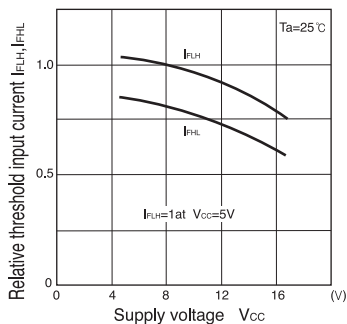
**Forward current Vs. Forward voltage**



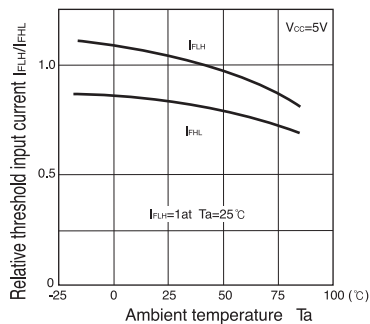
**Low level output voltage Vs. Low level output current**



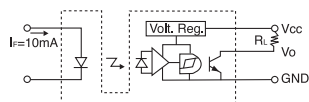
**Relative threshold input current Vs. Supply voltage**



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



Measurement of high level output voltage



Measurement of propagation time

