

# LG - 206

The LG - 206 photointerrupter combine high output GaAs IRED with photo IC.

The sensor makes possible easy development of objectdetecting systems with high performance, high reliability and small equipment size.

### FEATURES

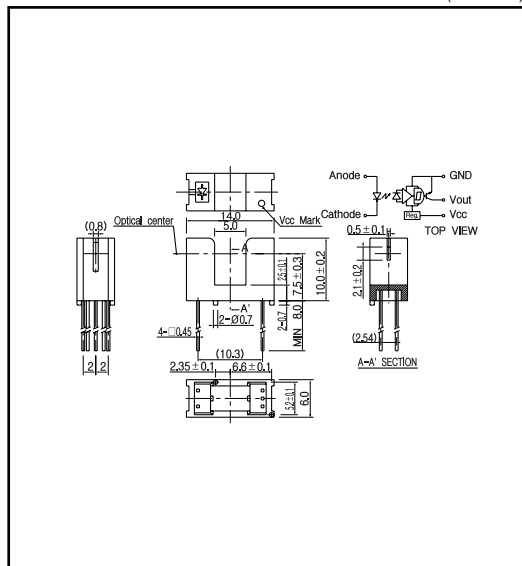
- Built - in amplifier
- Open collector output

### APPLICATIONS

- Floppy disk drives
- Copiers
- Facsimiles

### DIMENSIONS

(Unit : mm)



### MAXIMUM RATINGS

(Ta=25 )

Item	Symbol	Rating	Unit	
Input	Power dissipation	P <sub>o</sub>	100	mW
	Reverse voltage	V <sub>R</sub>	5	V
	Forward current	I <sub>F</sub>	60	mA
Output	Supply voltage	V <sub>CC</sub>	16	V
	Low level output current	I <sub>OL</sub>	30	mA
	Power dissipation	P	200	mW
	Operating temp.	Topr.	- 20 ~ + 85	
	Storage temp.	Tstg.	- 30 ~ + 85	
	Soldering temp.*1	Tsol.	260	

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

### ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25 )

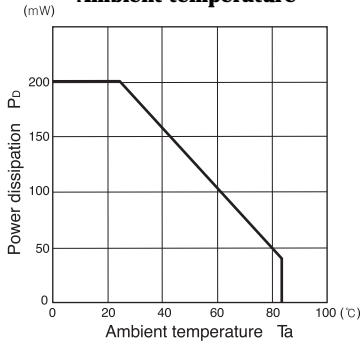
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.	
Input	Forward voltage	V <sub>F</sub>		1.2	1.4	V	
	Reverse current	I <sub>R</sub>	V <sub>R</sub> = 5V		10	μA	
	Peak wavelength	p		940		nm	
Output	Operating supply voltage range	V <sub>CC</sub>	4.5		17	V	
	Low level output voltage	V <sub>OL</sub>	I <sub>OL</sub> = 16mA, V <sub>CC</sub> = 5V, f = 0	0.3	0.4	V	
	High level output voltage*2	V <sub>OH</sub>	I <sub>F</sub> = 12mA, V <sub>CC</sub> = 5V, R <sub>L</sub> = 10K	4.5		V	
	Low level supply current	I <sub>CCL</sub>	V <sub>CC</sub> = 5V, f = 0		3	mA	
	High level supply current	I <sub>CCH</sub>	V <sub>CC</sub> = 5V, f = 10mA		2	mA	
Trans - mission	L <sub>F</sub> H threshold input current	I <sub>FLH</sub>	V <sub>CC</sub> = 5V	5	12	mA	
	Hysteresis	I <sub>FHL</sub> /I <sub>FLH</sub>	V <sub>CC</sub> = 5V	0.60	0.83	0.98	-
	L <sub>F</sub> H propagation time*3	t <sub>PLH</sub>	V <sub>CC</sub> = 5V, f = 18mA		1		μsec.
	H <sub>F</sub> L propagation time*3	t <sub>PHL</sub>	R <sub>L</sub> = 3.3K		3		

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

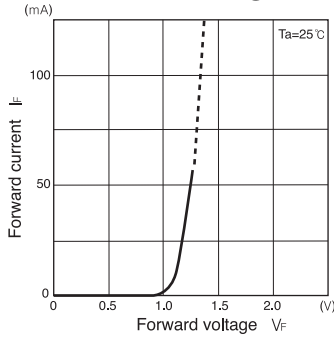
# Photointerrupters(Transmissive)

## LG - 206

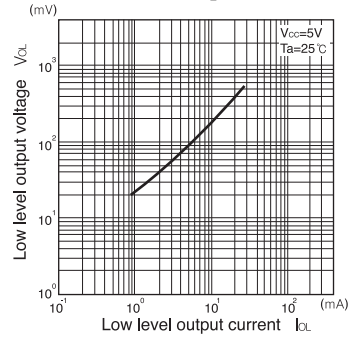
**Power dissipation Vs. Ambient temperature**



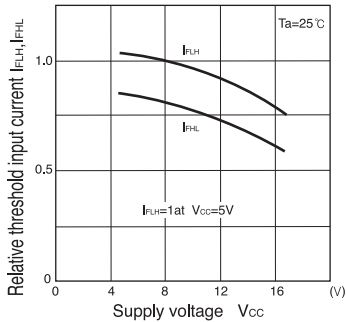
**Forward current Vs. Forward voltage**



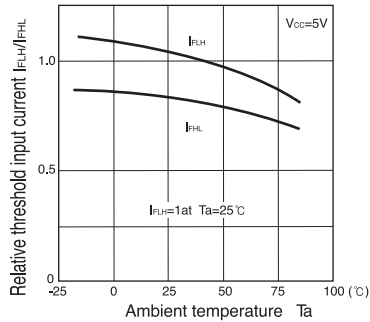
**Low level output voltage Vs. Low level output current**



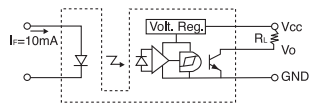
**Relative threshold input current Vs. Supply voltage**



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



Measurement of high level output voltage



Measurement of propagation time

