LG - 205

The LG - 205 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

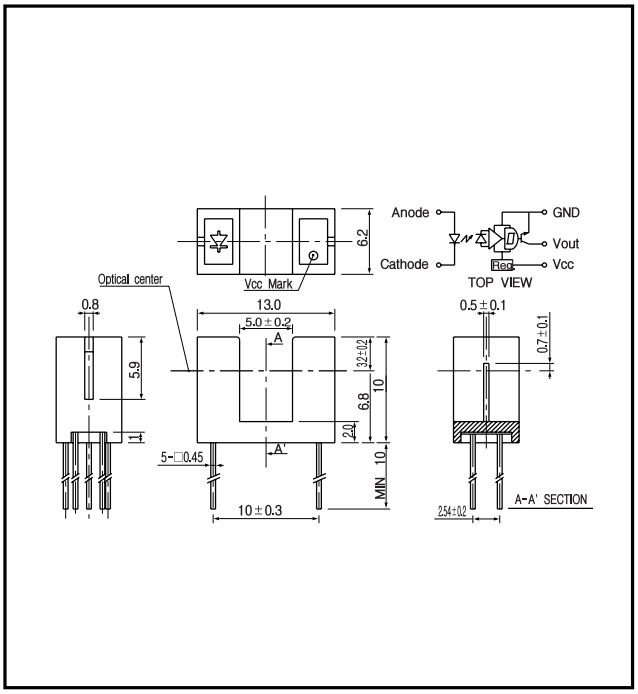
- Built - in amplifier
- Open collector output

APPLICATIONS

- Floppy disk drives
- Copiers
- Facsimiles

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25℃)

Item		Symbol	Rating	Unit
Input	Power dissipation	P_D	100	mW
	Reverse voltage	V_R	5	V
	Forward current	I_F	60	mA
Output	Supply voltage	V_{CC}	17	V
	Low level output current	I_{OL}	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_F			1.2	1.4	V
	Reverse current	I_R	V_R=5V			10	μA
	Peak wavelength	λp			940		nm
Output	Operating supply voltage range	V_{CC}		4.5		16.5	V
	Low level output voltage	V_{OL}	I_{OL}=16mA, V_{CC}=5V, I_F=0		0.3	0.4	V
	High level output voltage *2	V_{OH}	I_F=12mA, V_{CC}=5V, R_L=10KΩ	4.5			V
	Low level supply current	I_{CCL}	V_{CC}=5V, I_F=0		3	10	mA
	High level supply current	I_{CCH}	V_{CC}=5V, I_F=12mA		3	10	mA
Transm - ission	L→H threshold input current	I_{FLH}	V_{CC}=5V		5	12	mA
	Hysteresis	I_{FHL}/I_{FLH}	V_{CC}=5V	0.5	0.80	0.95	-
	L→H propagation time *3	t_{PLH}	V_{CC}=5V, I_F=18mA		1	5	μsec.
	H→L propagation time *3	t_{PHL}	R_L=3.3KΩ		3	15	

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

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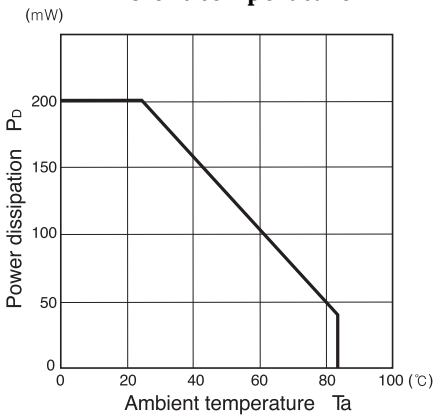
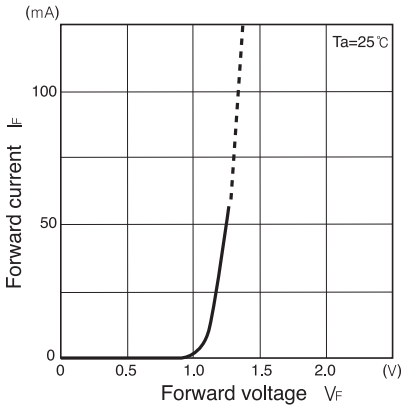
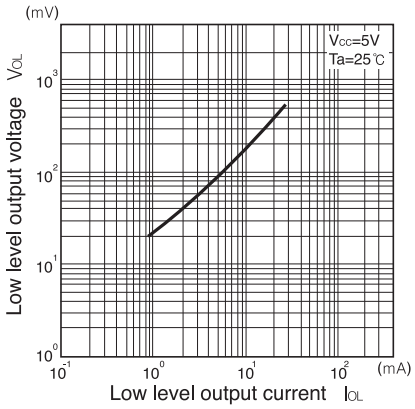
Power dissipation Vs. Ambient temperature



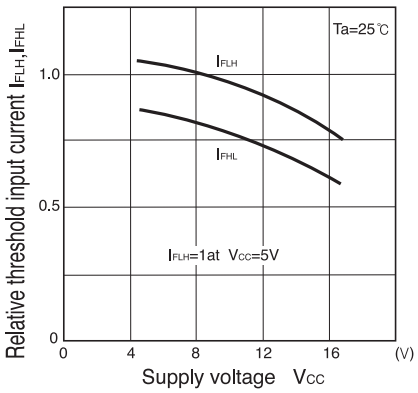
Forward current Vs. Forward voltage



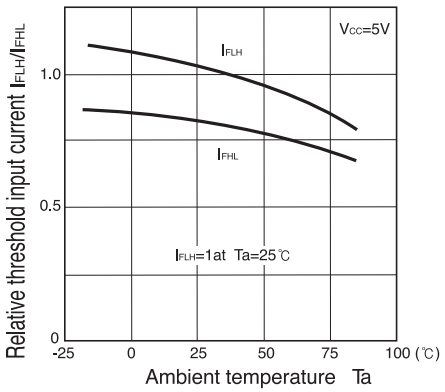
Low level output voltage Vs. Low level output current



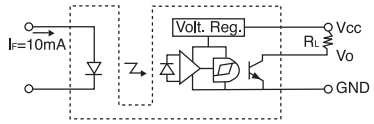
Relative threshold input current Vs. Supply voltage



Relative threshold input current Vs. Ambient temperature



Measurement of high level output voltage



Measurement of propagation time