

SIC401L

Photo Interrupter

SIC401L is Transmission type photointerrupter combined high power GaAs IRED with Photo-IC. Being suitable for highly accurate position detecting, it is great help in developing an object detecting system of high performance and high reliability.

Features

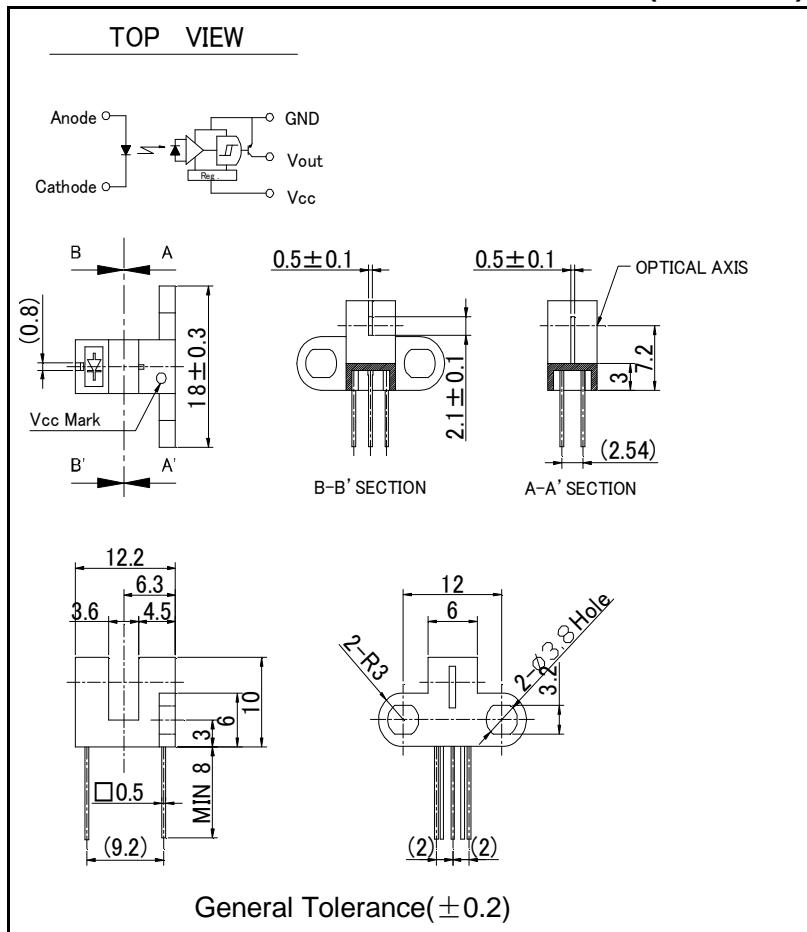
- PWB direct mount type
- GAP:3.6mm
- Double-side screw mount
(adjustable mounting position)

Applications

- Printer
- Fax
- Vending machines
- Amusement machines
- Encoders

Dimensions

(Unit: mm)



Maximum Ratings

(Ta=25°C)

Item	Symbol	Rating	Unit
Input	P _D	100	mW
	I _F	60	mA
	V _R	5	V
	I _{FP}	1	A
Output	V _{CC}	17	V
	I _{OL}	30	mA
	P _O	200	mW
Operating temperature	T _{opr.}	-20 ~ +85	°C
Storage temperature ^{*2}	T _{stg.}	-30 ~ +85	°C
Soldering temperature ^{*3}	T _{sol.}	260	°C

^{*1} pulse width: $tw \leq 100\mu s$ period: $T=10ms$

^{*2} No icebound or dew.

^{*3} The soldering should be 1mm away from bottom of the holder t=within 5s

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Electro-Optical Characteristics

(Ta=25°C)

Item		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward voltage	V _F	I _F =20mA	-	1.2	1.4	V
	Reverse current	I _R	V _R =5V	-	-	10	μA
	Peak wavelength	λ _P	I _F =20mA	-	940	-	nm
Output	Operating voltage	V _{CC}	—	4.5	—	16.5	V
	Low output voltage	V _{OL}	V _{CC} = 5V, I _F = 20mA, I _{OL} = 16mA	—	—	0.4	V
	High output voltage	V _{OH}	V _{CC} = 5V, I _F = 0mA, R _L = 10kΩ	4.5	—	—	V
	Low supply current	I _{CCL}	V _{CC} = 5V, I _F = 20mA, R _L = 10kΩ	—	—	10	mA
	High supply current	I _{CCH}	V _{CC} = 5V, I _F = 0mA, R _L = 10kΩ	—	—	10	mA
Transfer characteristics	H→L threshold input Current	I _{FHL} ^{*4}	V _{CC} = 5V, R _L = 10kΩ	—	—	12	mA
	Hysteresis	I _{FLH} /I _{FHL} ^{*5}	V _{CC} = 5V, R _L = 10kΩ	—	0.8	—	—
	H→L propagation speed	t _{PHL}	V _{CC} = 5V, I _F = 18mA, R _L = 3.3kΩ	—	1	—	μs
	L→H propagation speed	t _{PLH}		—	3	—	μs
	Rise time	tr		—	0.6	—	μs
	Fall time	tf		—	0.02	—	μs

*4 IFLH represents forward current when output changes from low to high.

*5 IFHL represents forward current when output changes from high to low.

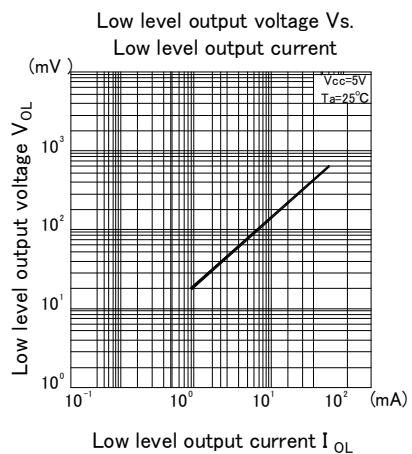
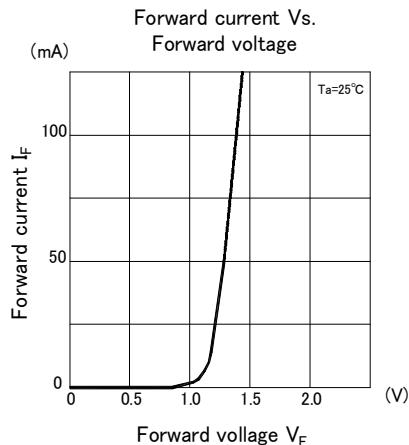
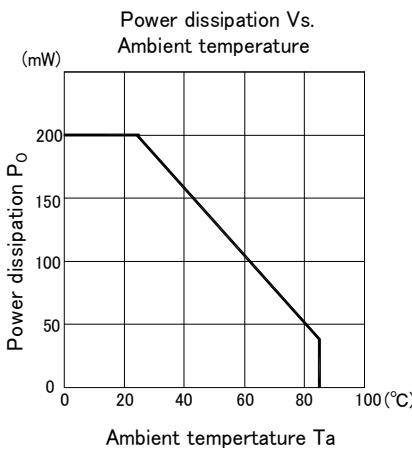
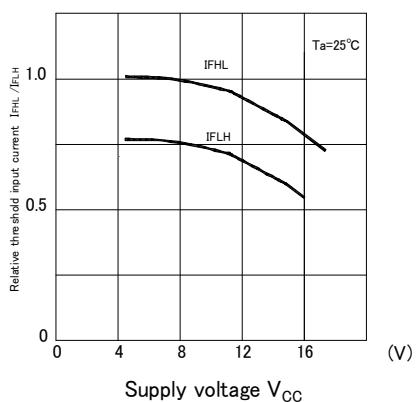


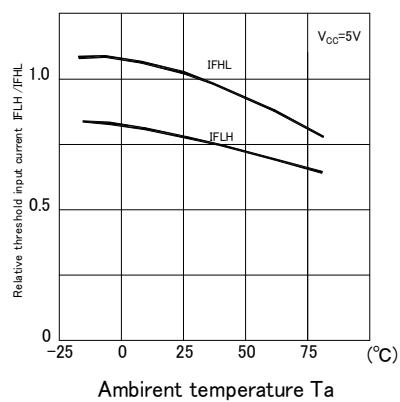
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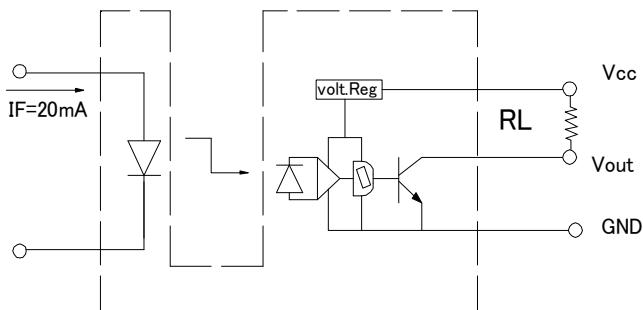
Relative threshold input current Vs.
Supply voltage



Relative threshold input current Vs.
Ambient temperature



Measurement of high output voltage



Measurement of propagation time

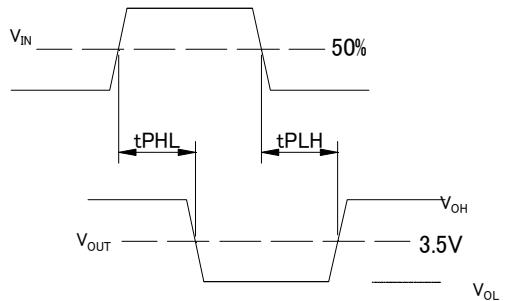
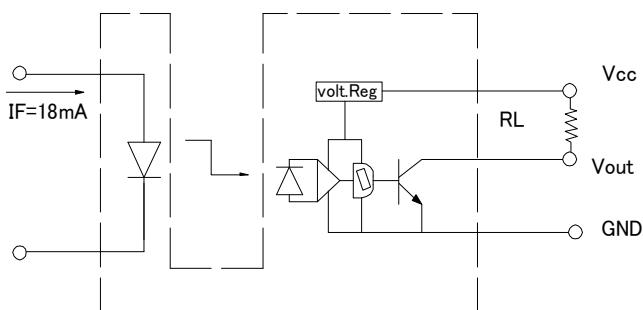


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Packing Specification

1. Fixed quantity (max 400pcs) of the products are packed into plastic bag

2. Ten bags of the products are put into #2 box

3. Two #2 boxes are put into #3 box(max 8000pcs)

4. Packing slip is pasted on #3 box

