

## IT051L(IT051H)

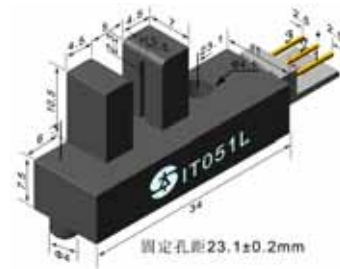
### ● Features

- Single beam, build in amplifier and Schmitt trigger.
- Open collector output.
- Resolution: slit width=0.5mm.
- IT051L is low level output type when the gap is not shielded.
- IT051H is high level output type when the gap is not shielded.

### ● Dimensions

Unit:mm

Unless otherwise specified, the tolerances are  $\pm 0.2\text{mm}$

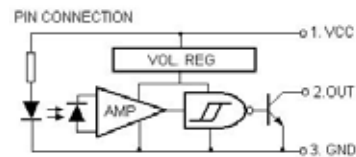


### ● Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Operating Voltage	V <sub>ccmax</sub>	5	V
Output Voltage	V <sub>out</sub>	16	V
Low Level Output Current	I <sub>oL</sub>	30	mA
*Operating Temperature	T <sub>opr</sub>	-20~6 5	°C
Storage Temperature	T <sub>stg</sub>	-30~7 5	°C
Soldering Temperature	T <sub>sol</sub>	-	°C

\*The special requirement could be met according to customer's request.

### Internal Circuit



### ● Electro-Optical Characteristics(Ta=25°C)

	Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =10mA	-	1.2	1.4	V
	Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	10	μA
Output	Operating Voltage	V <sub>cc</sub>		4.5	5.0	5.5	V
	Output Type			NPN transistor open collector output			
	Low Level Output	V <sub>OL</sub>	I <sub>oL</sub> =16mA, V <sub>cc</sub> =5V (IT051L, I <sub>F</sub> =10 mA) (IT051H, I <sub>F</sub> =0)	-	-	0.4	V
	High Level Output	V <sub>OH</sub>	V <sub>cc</sub> =5V, V <sub>oc</sub> ≤25V, R <sub>L</sub> =47K(IT051L, I <sub>F</sub> =0) (IT051H, I <sub>F</sub> =10 mA)	0.9 V <sub>oc</sub>	-	-	V
	Current Consumption	I <sub>cc</sub>	V <sub>cc</sub> =5V	-	3	16	mA
	Rise Time	T <sub>r</sub>	R <sub>L</sub> =4.7K	-	8	-	μS
	Fall Time	T <sub>f</sub>		-	0.03	-	μS