

SIC553-04 Photo IC

The SIC553-04 is a digital-output detector which incorporates a photodiode with signal processing circuit (amplifier, Schmitt trigger, voltage regulator).

Features

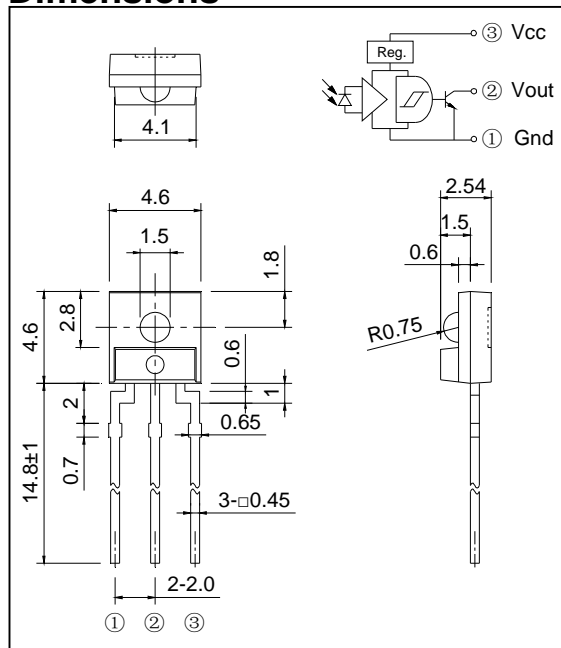
- Built-in Schmitt trigger circuit
- Open-Collector output
- Wide Vcc range
- Low level output without signal

Application

- Paper sensors
- Optical detectors

Dimensions

(Unit:mm)



MAXIMUM RATINGS

(Ta= 25°C)

Item	Symbol	Rating	Unit
Supply voltage	Vcc	17	V
Low level	I _{oL}	30	mA
Out transistor power dissipation	PD	200	mW
Operating Temperature	T _{opr.}	-25~+85	°C
Storage Temperature	T _{stg.}	-40~+100	°C
Soldering temperature *1	T _{sol.}	260	°C

Note : *1. For MAX.5 seconds at the position of 2mm from the package

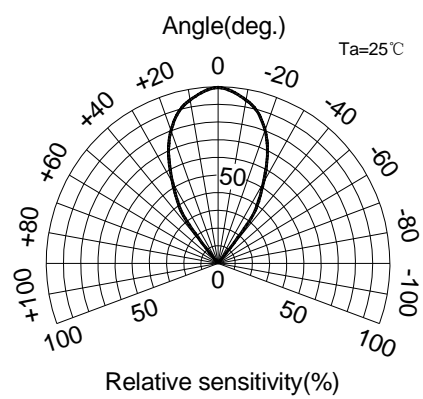
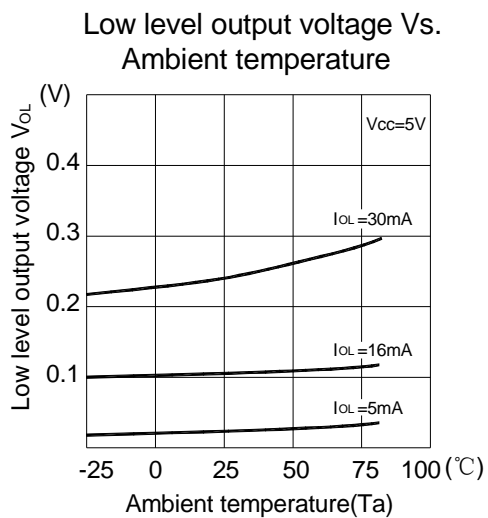
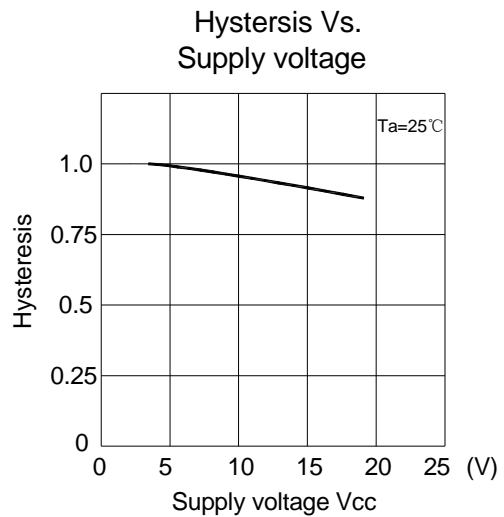
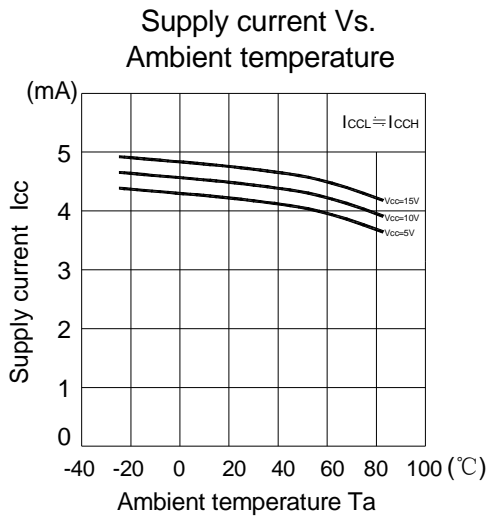
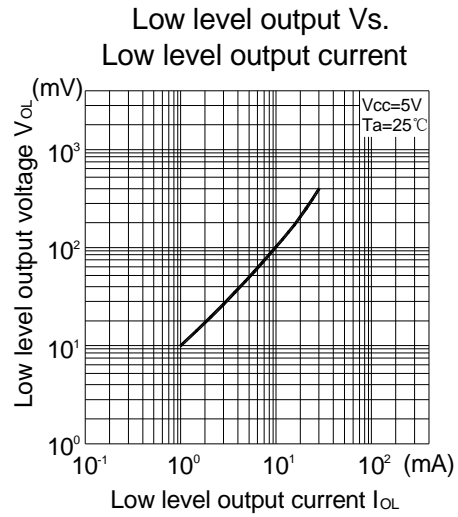
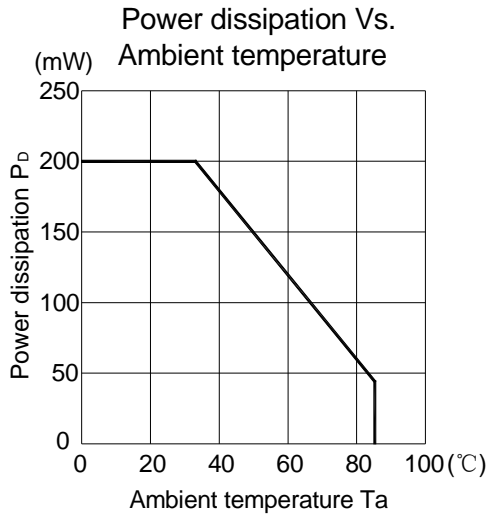
ELECTRO- OPTICAL CHARACTERISTICS

(Ta= 25°C)

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Supply voltage	V _{CC}	-	4.5		17	V
High level supply current	I _{CCH}	E _V =200Lux*2	-	3	6	mA
Low level supply current	I _{CCL}	E _V =0Lux	-	3	6	mA
High level output voltage	V _{OH}	R _L =10kΩ, V _{up} =5V E _V =200Lux*2	4.5	-	-	V
Low level output voltage	V _{OL}	I _{OL} =16mA, E _V =0lux	-	-	0.4	V
L→H Threshold illuminance	E _{VLH}	*2	-	-	65	μW
H→L Threshold illuminance	E _{VHL}	*2	8	-	60	μW
Hysteresis	P _{PLH} /P _{PLH}	-	-	-	0.95	-
Peak wavelength	λ _p	-	-	900	-	nm
Switching speed	L→H propagation time	t _{PLH}	-	2	6	μS
	H→L propagation time	t _{PHL}	-	3	9	μS
	Rise time	t _r	-	0.1	0.5	μS
	Fall time	t _f	-	0.05	0.5	μS

Note : *2. Irradiance by CIE standard light source A (2856K tungsten lamp)

SIC553-04



Packing Specification

- 1.Fixed quantity (1000pcs) of the products are packed into plastic bag
- 2.Five bags of the products are put into #1 box
3. Ten #1 boxes are put into #2 box and two #2 boxes are put into #3 box(max 100,000pcs)
4. Packing slit is pasted on the out box

