

SIC433-02 DAYLIGHT SENSOR IC

SIC433-02 which peak sensitivity is designed at structure $\lambda p=520\text{nm}$, is photo-IC daylight sensor with optical filterless. It has both low drive voltage and output in proportion to illumination, and it has not sensitivity in a long wavelength domain.

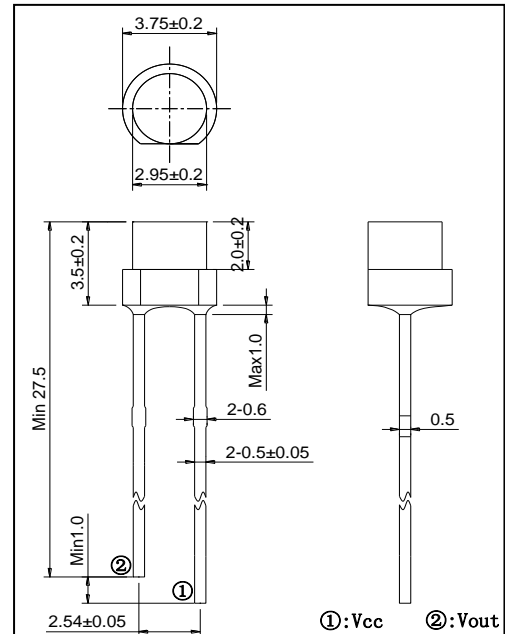
Features

- Zero sensitivity in a long wavelength domain
- Optical filterless
- A small current ratio between light sources
- Low voltage drive (1.8V~6.0V)
- Analog current output in proportion to illumination

Application

- Air conditioner

Dimensions (Unit:mm)



MAXIMUM RATINGS

($T_a = 25^\circ\text{C}$)

Item	Symbol	Rating	Unit
Supply voltage	Vcc	-0.5~+7.0	V
Operating temp.	*1 Topr.	-20~+85	°C
Storage Temp.	Tstg.	-30~+100	°C
Soldering temp.	Tsol.	260	°C

Note : *1. Vcc=5V, RL=100Ω

RECOMMENDED ITEMS

($T_a = 25^\circ\text{C}$)

Item	Symbol	Rating	Unit
Supply voltage	Vcc	+1.8~+6.0	V

ELECTRO- OPTICAL CHARACTERISTICS

(Vcc=5V, $T_a = 25^\circ\text{C}$)

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Dark current	I_d	$E_v=0\text{lx}$	-	-	300	nA
Output current	I_L	$E_v=100\text{lx} * 2$	150	220	260	μA
Output current	I_L	$E_v=1.5\text{lx} * 2$	2.5	3.7	5.5	μA
Comparison	I_{LA}/I_{LB}	$E_v=100\text{lx} * 3$	0.8	1.0	1.5 * 4	-
Spectral sensitivity	λ	-	400~750			nm
Peak wavelength	λ_p	-	-	520	-	nm
Half angle	$\Delta\theta$	-	-	±65	-	deg.

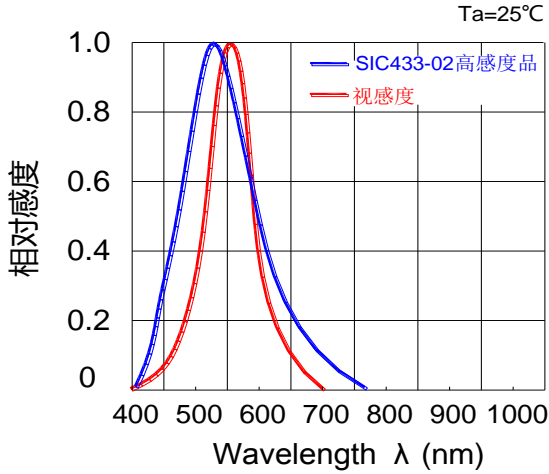
Note : *2. A light (Color temp. = 2856K LED)

*3. I_{LA} / I_{LB} = A light output / B light output (A light=Color temp=2856K, B light=Color temp=4870K)

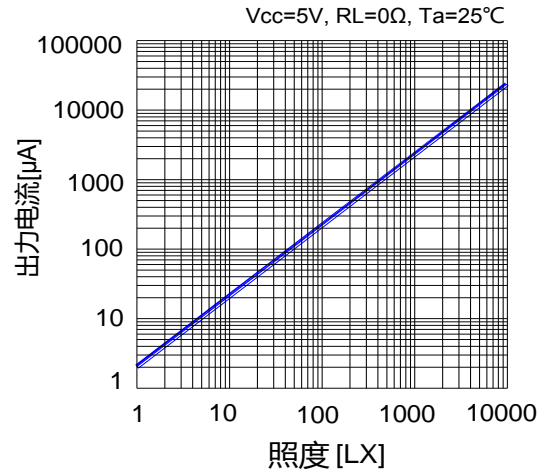
*4. Maximum value to light coming from +/-90 degree against the detecting from

SIC433-02

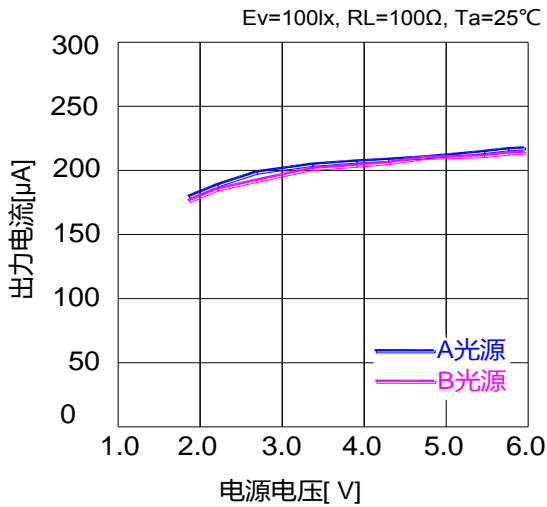
分光感度特性 Spectral Sensitivity



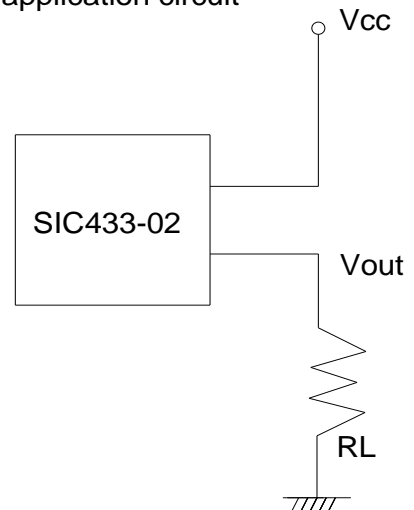
光电流特性 Light Current



光电流特性 Light Current Light Current against supply voltage



使用回路例 Typical application circuit

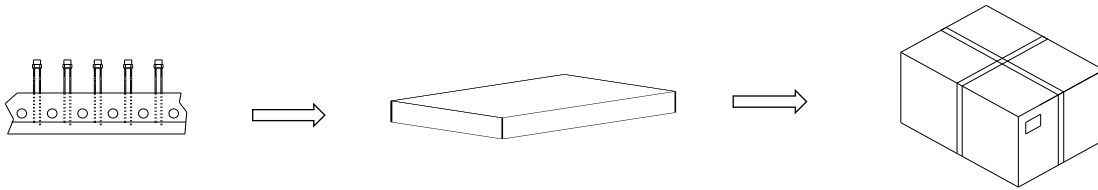


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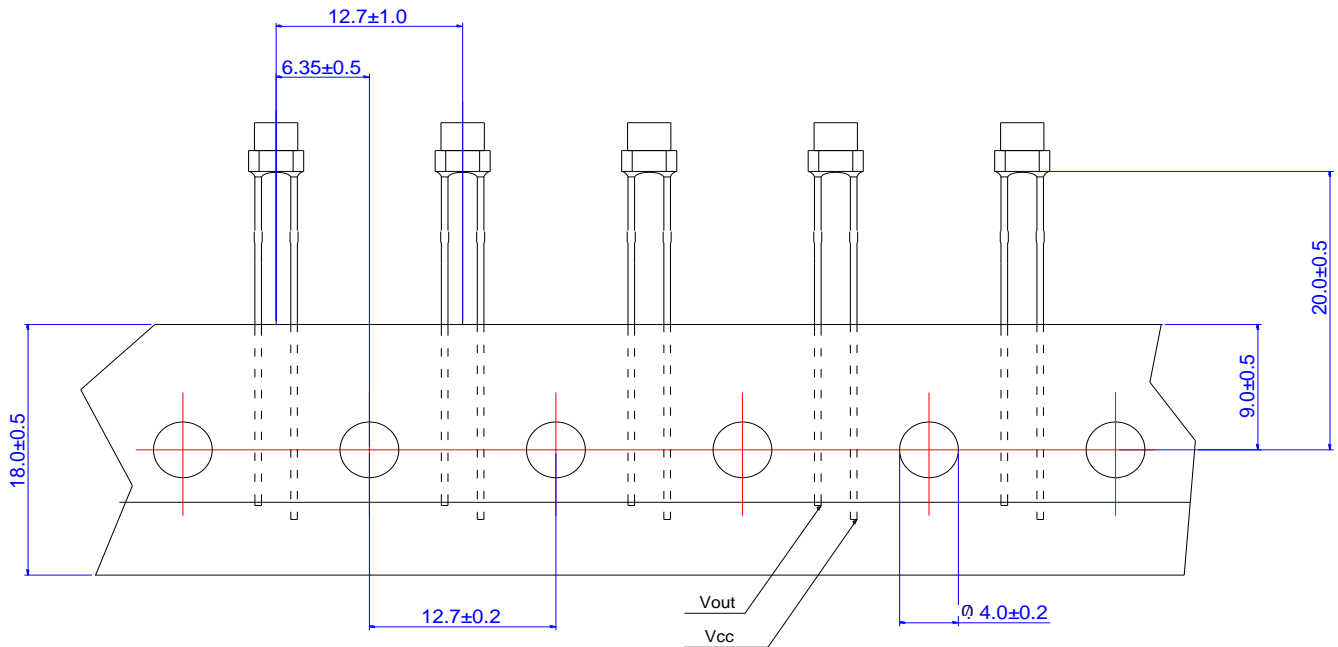
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Taping Packing Specification

- 1. Fixed quantity (3000pcs) of the products are packed into Inner box
- 2. Ten Inner boxes are put into #3 box(max 30,000pcs)
- 3. Packing slit is pasted on the out box



制品编带图面



单位: mm