NEW PRODUCT

ALPHA-ONE ELECTRONICS LTD.
Kanagawa, Japan

SMD PHOTO IC: AC-462

Spectral response close to human eye sensitivity

Preliminary

Features

- AC-462 is Surface Mount compact type photo IC and can output the voltage which is relative to logarithm of input light.
- Spectral response close to human eye sensitivity can be obtained without using any visual-compensated filters.
- AC-462 has an excellent linearity upto 2000lux.

Applications

- Camera
- Light Switching
- Light level measurement in various fields

■ Absolute Maximum Ratings (Ta=25℃)

Parameter	Symbol	Value	Unit
Input Voltage	V_{DD}	-0.3 to 10.0	V
Supply Current		Internally limited	mA
Operating Temperature	T_{OPR}	-40 ~ +85	℃
Storage Temperature	T_{STR}	-40 ~ +100	℃

■ Electrical Characteristics (unless specified, Ta=25℃, V_{DD}=5V, R_{SS}=10kΩ)

Parameter		Symbol	Min	Typ	Max	Unit	Condition
Peak sensitivity wavelength		λ_P		520		nm	
Sensitive Area		S		0.054		mm^2	
Infrared response				1	5	%of peak	900nm
Min. operational voltage		V_{DD}-V_{SS}		2.5		V	I_{SS}=250 μA
				1.5			I_{SS}=50 μA
Light Current	L1	I_{SS}	150	300	450	μA	E_V = 2000 *lx*
	L2		75	150	225		E_V = 1000 *lx*
	L3		7.5	15	22.5		E_V = 100 *lx*
Dark Current	D1	I_{DD}		<1		nA	0 *lx*, Ta=25℃
	D2			170			0 *lx*, Ta=85℃
Gain Linearity			-10		10	%	
Useable light range			1		6000	Lux	R_{SS} & V_{DD} dependant

Note: With a lower R_{SS} resistance, the linear light response range can be greatly increased – up to 6000 lx. Please refer to the graph for RSS = 1KΩ mentioned below.

The data is subject to change without notice.

External Dimension （unit: mm）