

## 3-in-1 Light Sensor Ambient Light Sensor(ALS) + Proximity Sensor(PS) + IR LED 2.5 x 2.0 x 1.0 mm PA122 Series

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### Features

- Ceramic Based 3-in-1 Light Sensor
- ALS Sensing Tolerance  $\pm 10\%$
- PS Crosstalk Cancelling 50% ADC counts
- Support 16-Bit Format Via I<sup>2</sup>C Interface
- 50/60Hz Noise Rejection Filter
- Power Saving Mode, Low Power Consumption
- Programmable LED Driver Strength & LED Modulation Frequency
- Applications : Smartphone, Phablet, Tablet, Digital Single Lens Reflex Camera, Smart Wearable Sport & Fitness.

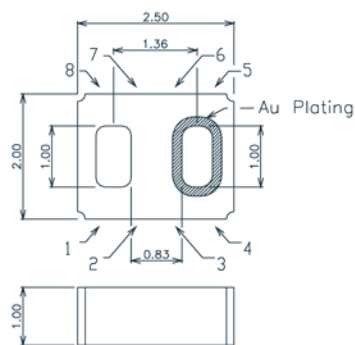
### Electrical Specifications

Item / Type	PA122
Operating Temperature Range	-40~85°C
Storage Temperature Range	-40~85°C
Supply Voltage	2.7~3.3 V
Supply Current (ALS Only)	250 $\mu$ A Max.
Supply Current (PS Only)	250 $\mu$ A Max.
Shutdown Current	1 $\mu$ A Max.
I <sup>2</sup> C Clock Rate Range	1~400 kHz
Peak Wave Length for ALS	550nm
ADC Conversion Time	100ms
ALS_Dark	< 3 Steps
ALS_Full_Scale	65,535 Steps
ALS Tolerance*	$\pm 10\%$
IR-LED Peak Wave Length	850 & 940 nm (LED)
IR-LED Driving Current	25, 50, 100, 150 mA
PS Detection Distance**	0~100 mm

\* Light Source : White LED (6500K)

\*\*Kodak 90% White Card

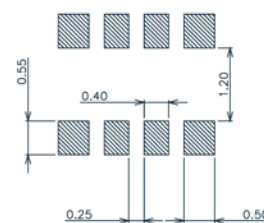
### Dimensions



### Pin Function

Name	Function
Pin 1	VDD
Pin 2	SCL
Pin 3	GND
Pin 4	LEDP
Pin 5	LEDN
Pin 6	LEDC
Pin 7	NINT
Pin 8	SDA

### Land Pattern



Units: mm  
Tolerance:  $\pm 0.15$