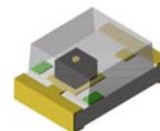


0805 Package Ambient Light Sensor

OE 4A28

Features

- High sensitivity and small junction capacitance
- Excellent linearity across wide illumination range
- High speed and high sensitive silicon NPN material
- High reliability standard LED package with water clear lens
- CDS substituted
- Remain within RoHS compliant



Applications

- Ambient light monitoring device for daylight
- Automatic contrast enhancement for electronic signboard
- Automatic residential and commercial management

RoHS



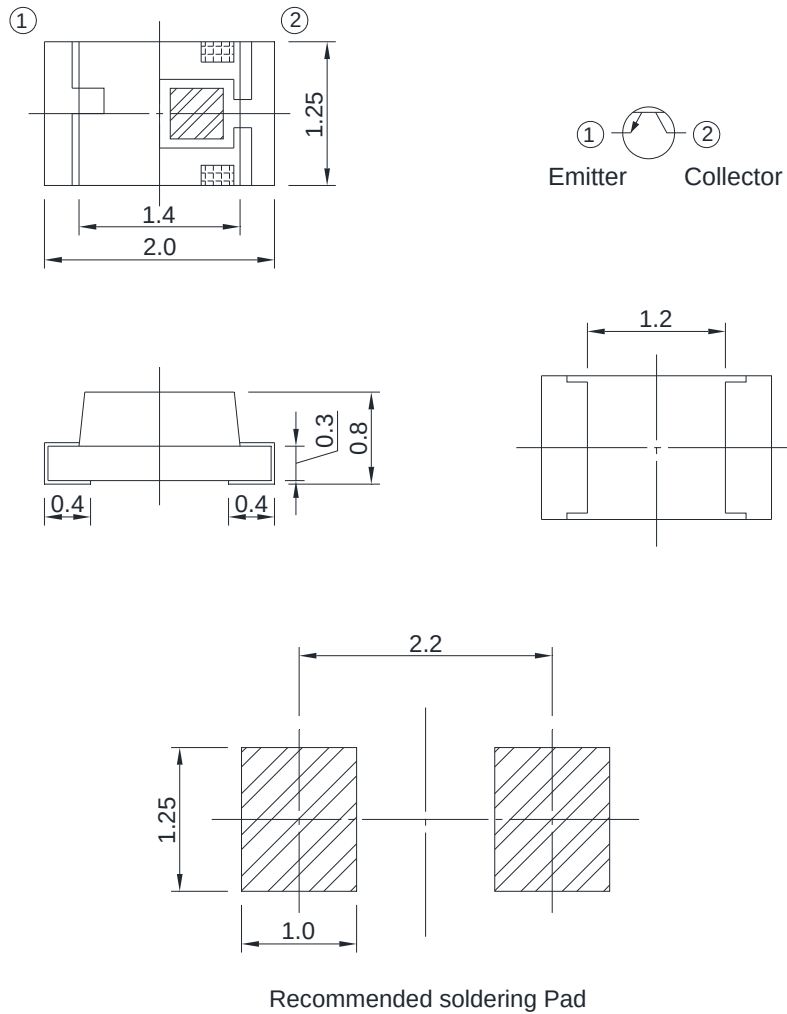
Absolute Maximum Rating $T(\text{amb}) = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Symbol	Value	Unit
Emitter-Collector Voltage	V_{ECO}	60	V
Collector-Emitter Voltage	V_{CEO}	4	V
Power Dissipation	P_{D}	70	mW
Power Dissipation	P_{c}	80	mW
Storage Temperature	T_{STG}	-40 to + 85	$^{\circ}\text{C}$
Soldering Temperature	T_{SOL}	260	$^{\circ}\text{C}$
Operating Temperature	T_{OPR}		

Note: Please take note the Absolute Maximum Rating values. Any operation beyond the specified ratings in this table will result degradation of LED life-span and may cause LED to fail.

Package Dimension:

unit : mm



Notes:

1. All dimensions are millimeters.
2. Tolerance is $\pm 0.2\text{mm}$ unless otherwise specified.
3. Specifications are subject to change without notice.

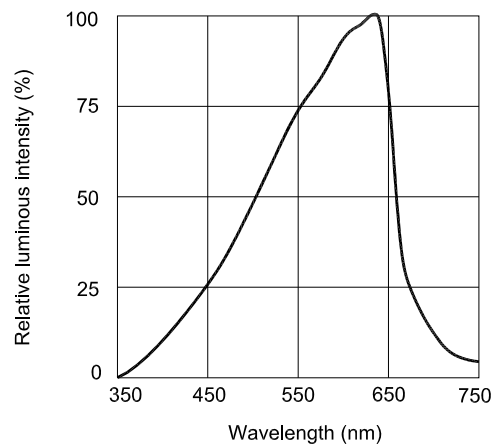
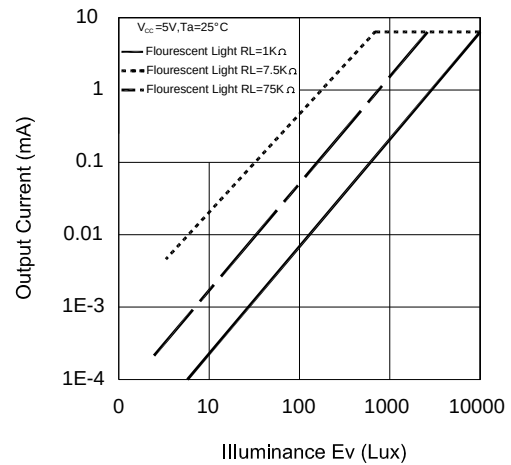
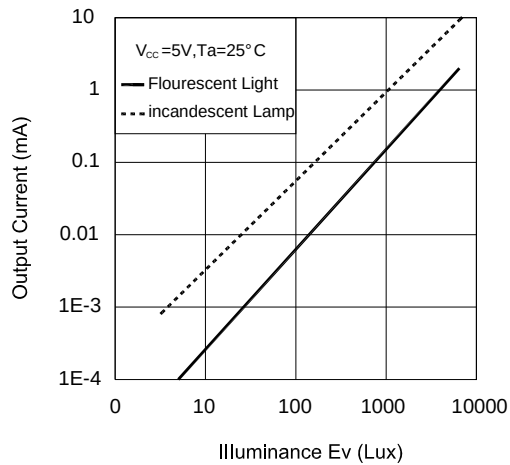
Optical Characteristics Tamb=25°C, unless otherwise specified

Parameter	Test condition	Symbol	Min.	Typ.	Max.	Unit
Emitter-Collector Breakdown Voltage	$I_C = 100\mu A$ $E_e = 0mW/cm^2$	BV_{ECO}	4	---	---	V
Collector- Emitter Breakdown Voltage	$I_C = 100\mu A$ $E_e = 0mW/cm^2$	BV_{CEO}	60	---	---	V
Collector-Emitter Saturation Voltage	$I_C = 2mA$ $E_e = 1mW/cm^2$	$V_{CE(SAT)}$	---	0.1	0.4	V
Collector Dark Current	$E_e = 0 \text{ lux}$ $V_{CE} = 10V$	I_{CEO}	---	---	100	nA
Light Current	$E_e = 100 \text{ lux (1)}$ $V_{CE} = 5V$	I_{L1}	---	7.5	---	μA
	$E_e = 100 \text{ lux (1)}$ $V_{CE} = 5V$	I_{L2}	---	150	---	mA
	$E_e = 1000 \text{ lux (2)}$ $V_{CE} = 5V$	I_{L3}	10	15	---	μA
	$E_e = 1000 \text{ lux (2)}$ $V_{CE} = 5V$	I_{L4}	110	180	---	μA
	$E_e = 1000 \text{ lux (3)}$ $V_{CE} = 5V$	I_{L5}	760	920	---	μA
Range of Spectral Bandwidth	---	$\lambda_{0.5}$	390	---	700	nm
Wavelength of Peak Sensitivity	---	λ_p	---	630	---	nm

Notes:

- (1) White LED is substituted as light source
- (2) White Fluorescent light is used as light source (Color Temperature @ 6500k)
- (3) Illuminati by CIE stand illuminant-A / 2856k.(Incandescent Lamp)

Typical Electro-optical Characteristics Curves



Photocurrent Convert to Voltage Circuit

