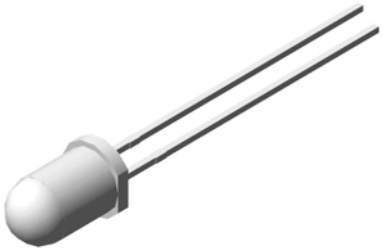
5mm Round Package Ambient Light Sensor

OE T558

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

Pb
pb-free

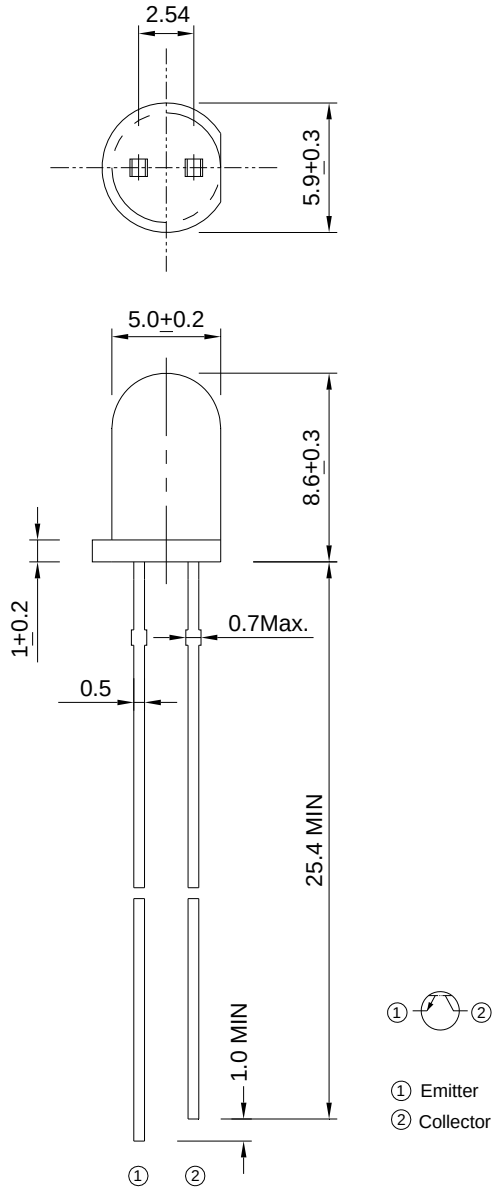
Absolute Maximum Rating T(amb) =25℃,unless otherwise specified

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	Pc	80	mW
Storage Temperature	T_{stg}	-40 to + 85	℃
Soldering Temperature	T_{sol}	260	℃

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 ± 0.2mm unless otherwise specified.
3. Specifications are subject to change without notice.

Optical Characteristics Tamb=25℃,unless otherwise specified

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Emitter-Collector Breakdown Voltage	I_C = 100uA Ee= 0mW/cm^2	BV_{ECO}	4	---	---	V
Collector- Emitter Breakdown Voltage	I_C = 100uA Ee= 0mW/cm^2	BV_{CEO}	60	---	---	V
Collector-Emitter Saturation Voltage	I_C = 2mA Ee = 1mW/cm^2	$V_{CE(SAT)}$	---	0.1	0.4	V
Collector Dark Current	Ee = 0 lux V_{CE} = 10V	I_{CEO}	---	---	100	nA
On State Collector Current	Ee = 100 lux (1) V_{CE} = 5V	$I_{C(ON)\ 1}$	---	150	---	uA
	Ee = 1000 lux (2) V_{CE} = 5V	$I_{C(ON)\ 2}$	---	3.0	---	mA
	Ee = 1000 lux (3) V_{CE} = 5V	$I_{C(ON)\ 3}$	---	200	---	uA
	Ee = 1000 lux (4) V_{CE} = 5V	$I_{C(ON)\ 4}$	---	1.5	---	mA
Range of Spectral Bandwidth	---	$\lambda_{0.5}$	400	---	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.

Typical Electro-optical Characteristics Curves