EVER-LED

RoHS Compliant
PB Free

0603080-FLWC-ALS-PT

1.6 x 0.8mm

Surface Mount Ambient Light Sensor

Technical Data Sheet

Features

Package (L/W/H) : 1.6 × 0.8 × 0.8mm

Chip Material : Silicon

Lens: Water Clear

Fast response time

High photo sensitivity

Close responsively to the human eye spectrum

Consist of phototransistor in miniature SMD

Device Selection Guide

LED Part No.	Chip Material	Lens Color
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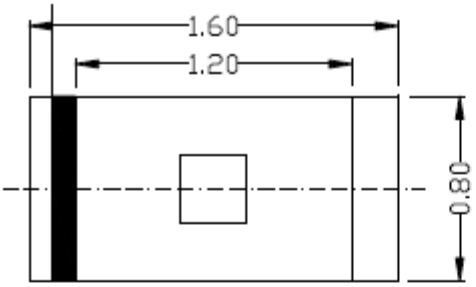
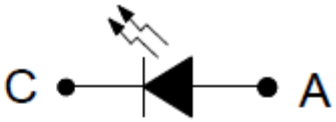
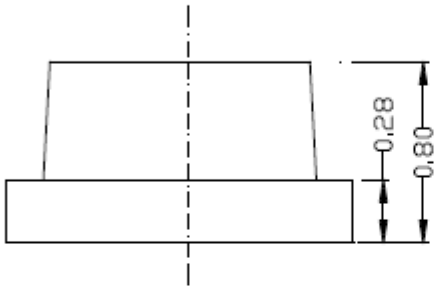
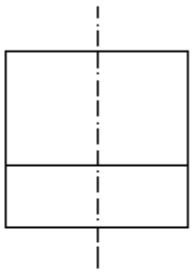
Package Dimensions

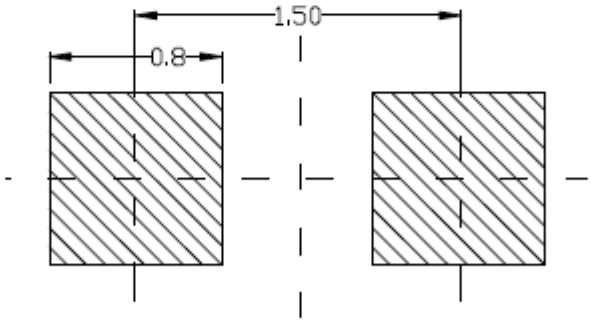








Soldering PAD Suggested:



- All dimensions are millimeters.
- Tolerance is 0.1mm unless otherwise noted.

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Electro-Optical Characteristics (T_a=25℃)

Parameter	Symbol	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Collector dark current	I_{CEO}	---	---	100	nA	V_{CE}=20V H=0mW/cm^2
C-E Saturation Voltage	$V_{CE\ (Sat)}$	---	0.2	0.4	V	I_C=2mA I_B=100uA
Collector-Emitter Breakdown Voltage	BV_{CEO}	30	---	---	V	I_C=100uA Ee=0mW/cm^2
Emitter-Collector Breakdown Voltage	BV_{ECO}	5	---	---	V	I_E=100uA Ee=0mW/cm^2
Rise Time(10%to90%)	tr	---	15	---	uS	V_{CE}=5V Ic=1mA R_L=100ohms
Fail Time(90%to10%)	t_f	---	15	---	---	---
Wavelength of Peak Sensitivity	λp	---	940	---	nm	---
Range of Spectral Bandwidth	$\lambda_{0.5}$	550	---	1100	nm	---
On State Collector Current	$I_{C(ON)}$	0.3	0.6	---	mA	V_{CE}=5V Ee=1mW/cm^2

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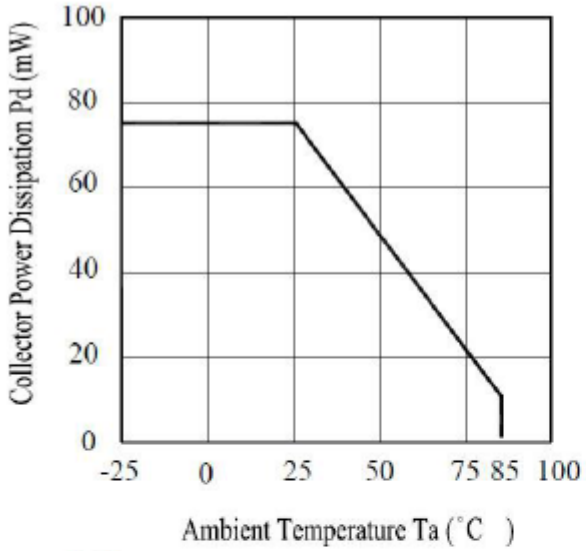
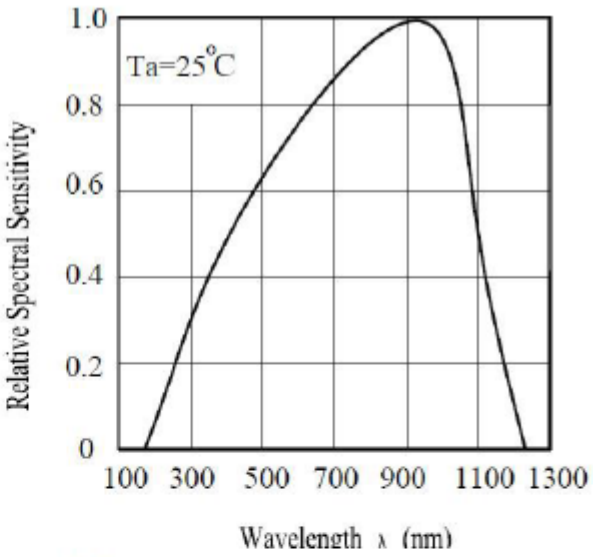
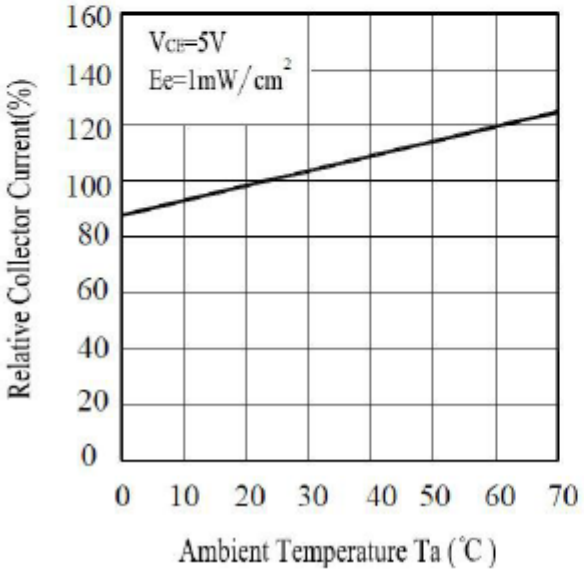
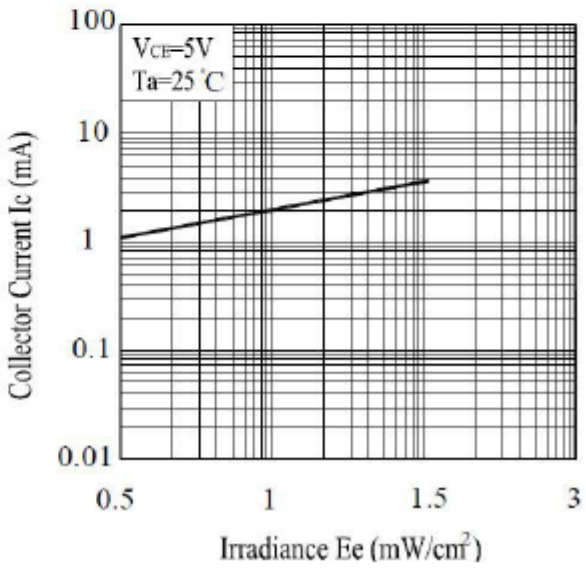
Typical Electro-Optical Characteristics Curves









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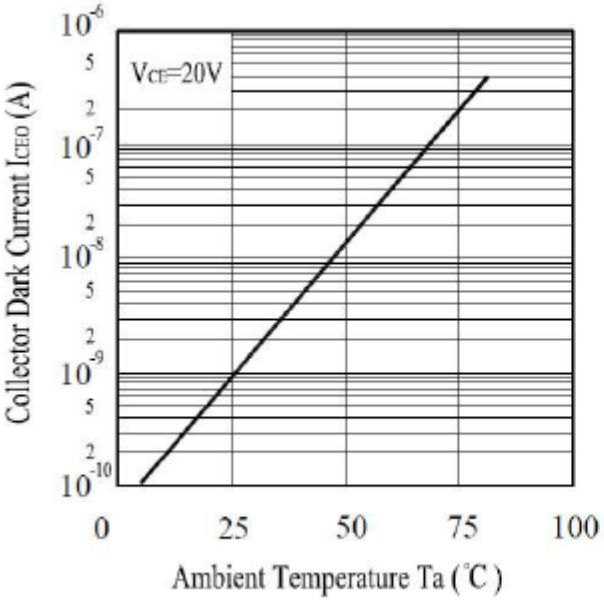

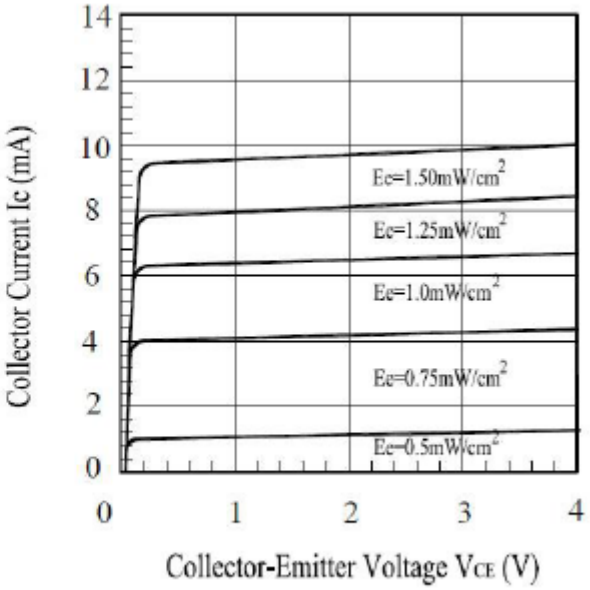

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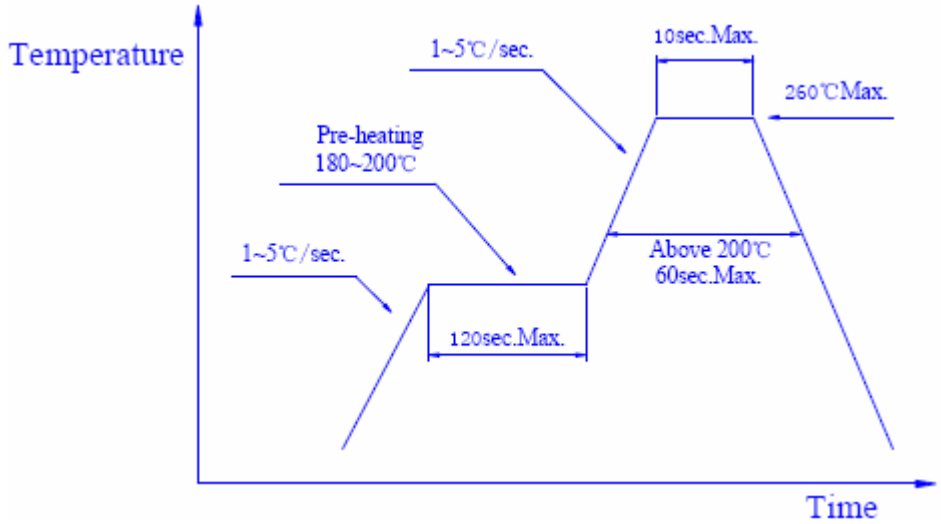
Precautions For Use

1. Over-current-proof
   Customer must apply resistors for protection, otherwise slight voltage shift will cause big
   Current change (Burn out will happen)
2. Storage
   Do not open moisture proof bag before the products are ready to use
   Before opening the package, the LEDs should be kept at 30°C or less and 90％RH or less
   The LEDs should be used within a year
   After opening the package, the LEDs should be kept at 30°C or less 70％RH or less
   The LEDs should be used within 168 hours(7 days)after opening the package
   If the moisture absorbent material(silica gel)has faded away or the LEDs have exceeded the

   Storage time, baking treatment should be performed using the following conditions
   Baking treatment:60±5°C for 24 hours
3. Soldering Condition

Pb-free solder temperature profile



Reflow soldering should not be done more than two times
When soldering, do not put stress on the LEDs during heating
After soldering, do not warp the circuit board

4. Soldering Iron
   Each terminal is to go to the tip of soldering iron temperature less than 280°C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do
   soldering of each terminal. Be careful because the damage of the product is often started at the

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time of
the hand solder

5. Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether
the characteristics of the LEDs will or will not be damaged by repairing