



## Features

- Pb free product—RoHS compliant
- Low power consumption, High efficiency
- Reliable and rugged
- Long life – solid state reliability
- Fast response time
- High photo sensitivity

## Package Dimension

### Notes:

1. All dimensions are in millimeters.
- 2.

LIG

LIGHT ELECTRONICS CO., LTD.

Part No.	SP
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## Electrical Optical Characteristics at Ta=25

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Range Of Spectral Bandwidth	$\lambda_{0.5}$	780	---	1100	nm	---
Wavelength Of Peak Sensitivity	$\lambda_p$	---	940	---	nm	---
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	30	---	---	V	$I_C=0.1mA$ $E_e=0mW/cm^2$
Emitter-Collector Breakdown Voltage	$BV_{ECO}$	5	---	---	V	$I_E=0.1mA$ $E_e=0mW/cm^2$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	---	---	0.4	V	$I_C=0.1mA$ $E_e=1mW/cm^2$
Rise Time	$T_r$	---	15	---	$\mu s$	$V_{CE}=5V$ $I_C=1mA$ $R_L=1000$
Fall Time	$T_f$	---	15	---	$\mu s$	
Viewing Angle	$2\theta_{1/2}$	---	50	---	Deg.	---
Collector Dark Current	$I_{CEO}$	---	---	100	nA	$V_{CE}=10V$ $E_e=0mW/cm^2$
On State Collector Current	$I_{C(ON)}$	1.0	---	---	mA	$V_{CE}=5V$ $E_e=1mW/cm^2$ $\lambda_p=940nm$

### Note:

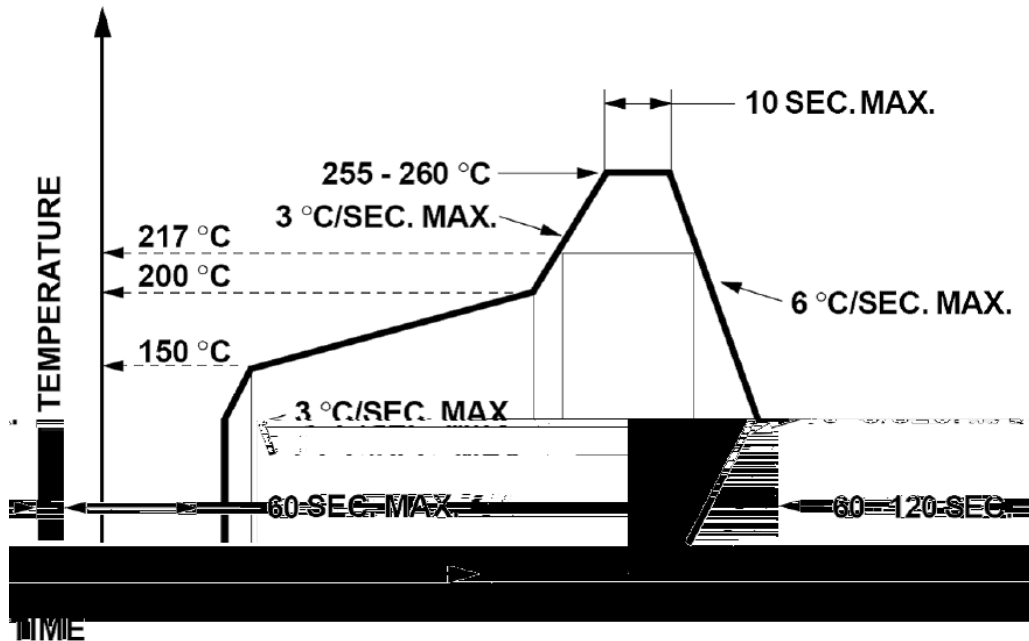
- $\theta_{1/2}$  is the off-axis angle at which the  $I_{C(ON)}$  is half the axial  $I_{C(ON)}$ .
- The  $I_{C(ON)}$  guarantee should be added  $\pm 15\%$  tolerance.







**Note:** Tolerance unless mentioned is  $\pm 0.1$ mm; Unit = mm



1. Reflow soldering should not be done more than two times.
2. When soldering, do not put stress on the LEDs during heating.

1. When hand soldering, the temperature of the iron must less than 300°C for 3 seconds.
2. The hand solder should be done only once.

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 LEDs will or will not be damaged by repairing.

