



# SnapLED

Functional solutions for robust rear combination lamp designs



SnapLED LEDs are a robust solution for customizable 2D and 3D clinch assemblies that allow efficient design solutions for rear lighting applications. The package utilizes Lumileds pioneering solderless clinch technology, designed specifically to meet the automotive industry's need for extreme reliability. SnapLED's proven design simplifies engineering complexity, increases styling flexibility and helps to minimize design cost.

## FEATURES AND BENEFITS

- Low stress and low gas permeability silicone encapsulant reduces delamination during solder reflow
- Gold plated leadframe reduces risk of frame sulphur corrosion
- Robust and reliable package with reduced risk of de-lamination at high temperatures
- Fewer LEDs to meet functional requirements
- AEC-Q101C qualified and PPAP documentation available

## PRIMARY APPLICATIONS

- Mirror/Side Repeater
- Side Marker
- Stop/Tail
  - CHMSL
- Turn

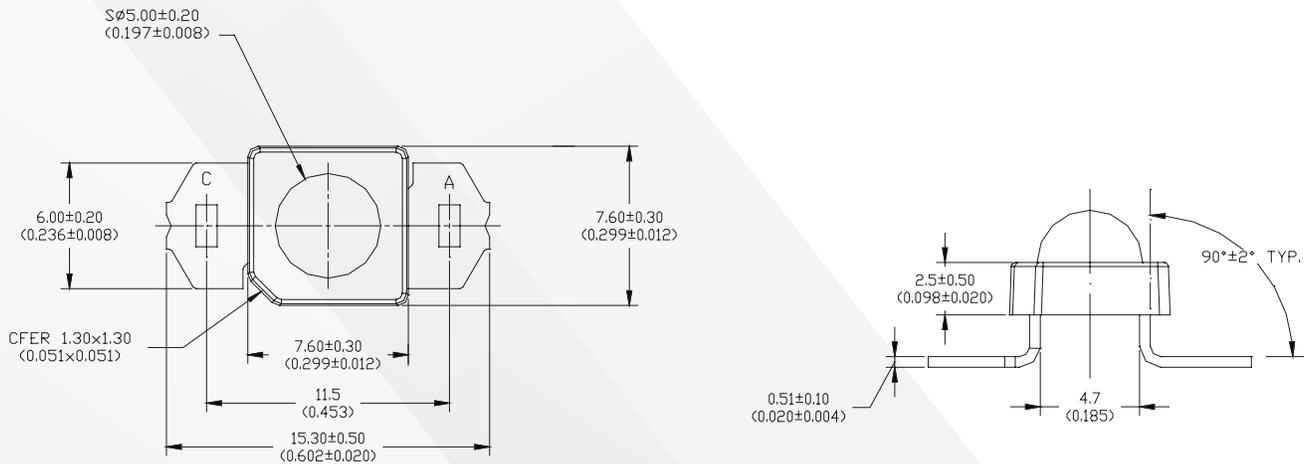
## SnapLED Absolute Ratings.

PARAMETER	PERFORMANCE
Minimum DC Forward Current <sup>[1][2]</sup>	5mA
Maximum DC Forward Current <sup>[1][2]</sup>	75mA for SnapLED 75 150mA for SnapLED 150
Peak Pulsed Forward Current <sup>[1][3]</sup>	300mA
Maximum Junction Temperature <sup>[1]</sup>	135°C
Operating Case Temperature <sup>[1]</sup>	-40 to 110°C
Storage Temperature	-40 to 115°C
Soldering Temperature	NA
Allowable Reflow Cycles	NA
ESD Sensitivity <sup>[2]</sup>	8kV Human Body Model (HBM) Class 3A per JEDEC JS-001-2012
Reverse Voltage (V <sub>r</sub> )	(I <sub>r</sub> = 100µA) 10V
High Temperature Chamber	125°C

### Notes:

- Proper current derating must be observed to maintain junction temperature below the maximum.
- Residual periodic variations due to power conversion from alternating current (AC) to direct current (DC), also called "ripple", with frequencies  $\geq 100\text{Hz}$  and amplitude  $\leq 150\text{mA}$  are acceptable, assuming the average current throughout each cycle does not exceed the maximum allowable DC Forward Current at the corresponding maximum junction temperature.
- Pulsed operation with a peak drive current equal to the stated Peak Pulsed Forward Current is acceptable if the pulse on-time is  $\leq 5\text{ms}$  per cycle and the duty cycle is  $\leq 50\%$ .

## Mechanical Dimensions.



### Notes:

- Drawings are not scale.
- All dimensions are in millimeters.

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