



LIGHT

Part 1 SL-T301

## Absolute Maximum Ratings at Ta=25

| Parameter                                | MAX.                    | Unit |
|--|-------------------------|------|
| Power Dissipation                        | 100                     | mW   |
| Collector-Emitter Voltage                | 30                      | V    |
| Emitter-Collector Voltage                | 5                       | V    |
| Collector Current                        | 50                      | mA   |
| Moisture Sensitivity Level <sup>*1</sup> | 3                       |      |
| Operating Temperature                    | -40 to + 85             |      |
| Storage Temperature                      | -40 to + 85             |      |
| IR Reflow Temperature <sup>*3</sup>      | 260 for 10 Seconds MAX. |      |

### 1. Storage

- (1). Storage requirements before vacuum bag opened: Temperature<30 , Humidity<65%RH;
- (2). Check air leakage and vacuum bag damage before opened. If there is any issue found, check the humidity indicator card immediately after bag opened:
  - a. If color changes on “10% circle” of the humidity indicator card only and not the circles of 20% and above, components can be used without additional handling;
  - b. If color changes on both 10% and 20% circles but not the circles of 30% and above, components must be dehumidified according to the conditions of bullet (5);
  - c. If color changes on 10%, 20%, and 30% circle or above, the product should be returned to the supplier for high temperature dehumidification;
- (3). After bag opened, manual soldering or reflow process must follow the following requirements:
  - a. Complete soldering / reflow within 168 hours;
  - b. Requirements of working environment: Temperature<30 , Humidity<60%RH;
- (4). If the working condition is outside (3)a or (3)b requirement, the components must be dehumidified according to the conditions of bullet (5);
- (5). Low temperature dehumidification: temperature 60±5 , 24 hours;
- (6). Shelf life: 1 year. If it's over 1 year from the production date on the package label, the components must be dehumidified according to the condition of bullet (5). If customer is unable to dehumidify, return components to LIGHT for dehumidification.

### 2. Cleaning:

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED if necessary.

### 3. IR Reflow Temperature:

It is the Plate Temperature.

### 4. Caution in ESD:

Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

## Electrical Optical Characteristics at Ta=25

| Parameter                            | Symbol        | Min. | Typ. | Max. | Unit | Test Condition  |
|--------------------------------------|---------------|------|------|------|------|---|
| Collector-Emitter Breakdown Voltage  | $BV_{CEO}$    | 30   | ---  | ---  | V    | $I_C=0.1\text{mA}$<br>$E_e=0\text{mW/cm}^2$                             |
| Emitter-Collector Breakdown Voltage  | $BV_{ECO}$    | 5    | ---  | ---  | V    | $I_E=0.1\text{mA}$<br>$E_e=0\text{mW/cm}^2$                             |
| Collector-Emitter Saturation Voltage | $V_{CE(SAT)}$ | ---  | ---  | 0.4  | V    | $I_C=0.1\text{mA}$<br>$E_e=1\text{mW/cm}^2$                             |
| Rise Time                            | $T_r$         | ---  | 15   | ---  | s    | $V_{CE}=5\text{V}$<br>$R_L=1\text{K}\Omega$<br>$I_C=1\text{mA}$         |
| Fall Time                            | $T_f$         | ---  | 15   | ---  | s    |   |
| Collector Dark Current               | $I_{CEO}$     | ---  | ---  | 100  | nA   | $V_{CE}=10\text{V}$<br>$E_e=0\text{mW/cm}^2$                            |
| On State Collector Current           | $I_{C(ON)}$   | 0.8  | 1.0  | ---  | mA   | $V_{CE}=5\text{V}$<br>$E_e=1\text{mW/cm}^2$<br>$\lambda_p=940\text{nm}$ |







## Carrier Tape Specifications (Loaded Quantity: 3500pcs/reel)

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

### Moisture Resistant Packaging





