

LST5050WY – 5050 White Top SMD LED



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



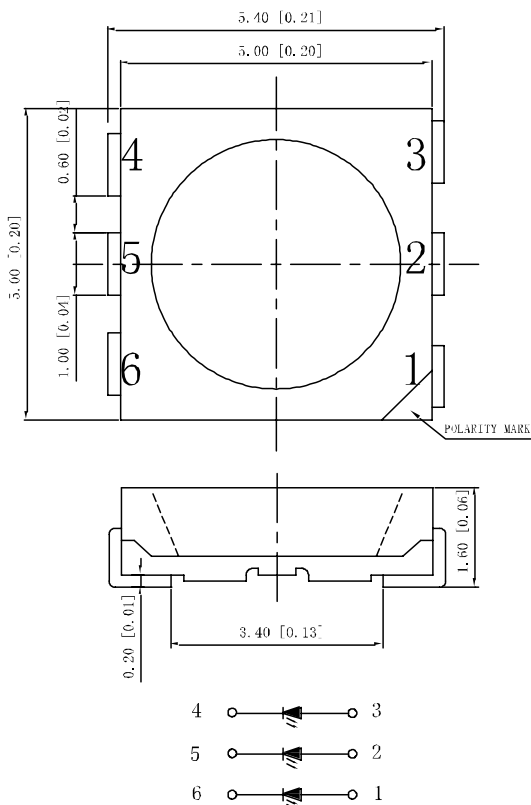
Features:

Extremely wide viewing angle
Suitable for all SMT assembly and solder process
Available on tape and reel
Moisture sensitivity level: Level 4
Package: 1000pcs/reel
RoHS compliant

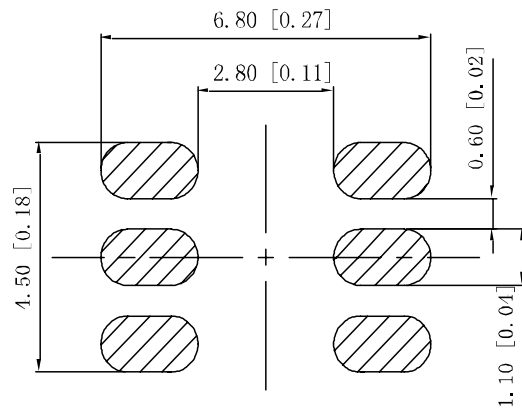
Available options:

Optical indicator
Indoor display
Interior automotive lighting
Backlight for LCD, switch and Symbol,
display Light pipe application
General use

Package Dimensions:



Recommended Soldering



Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is ± 0.15 mm unless otherwise noted.

Selection Guide

| Part No. | Dice | Lens Type | Luminous intensity(mcd)@20mA*3 | | Luminous flux(lm)@20mA*3 | | Viewing Angle |
|------------|---------------|-----------------|--------------------------------|------|--------------------------|-----|---------------|
| | | | Min. | Max. | Min | Typ | |
| LTL-5050WY | WHITE (InGaN) | Yellow Diffused | 5900 | 6600 | 18 | 20 | 2θ1/2 |
| | | | 6600 | 7600 | | | 120° |
| | | | 7600 | 8500 | | | |

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. The above luminous intensity measurement allowance tolerance ±10%.

Electrical / Optical Characteristics at Ta=25°C

| Parameter | Symbol | Min. | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------|------|------|------|-------|-----------------|
| Forward Voltage | VF | 2.8 | --- | 3.4 | V | IF=20mA*3 |
| Reverse Current | IR | --- | --- | 10 | μA | VR = 5V |
| Color Coordinates | X | --- | 0.31 | --- | --- | IF=20mA*3 |
| | Y | --- | 0.32 | --- | --- | IF=20mA*3 |
| Color Temperature | Tc | --- | 6500 | --- | K | IF=20mA*3 |
| Color Rendering Index | CR | 70 | --- | --- | Ra | IF=20mA*3 |

Absolute Maximum Ratings at Ta=25°C

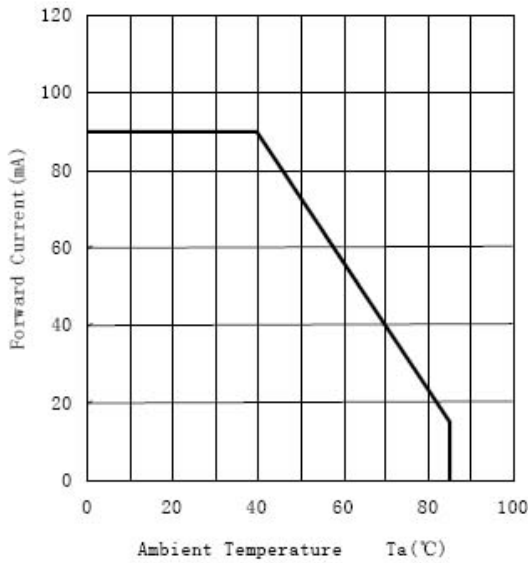
| Parameter | Symbol | Rating | Units |
|------------------------------|--------|------------|-------|
| Power Dissipation | Pd | 315 | mW |
| DC Forward Current per chip | IF | 30 | mA |
| Peak Forward Current [1] | IFP | 300 | mA |
| Reverse Voltage | VR | 5 | V |
| Electrostatic Discharge(HBM) | ESD | 1000 | V |
| Operating Temperature | Topr | -40 ~ +85 | |
| Storage Temperature | Tstg | -40 ~ +100 | |

Note:

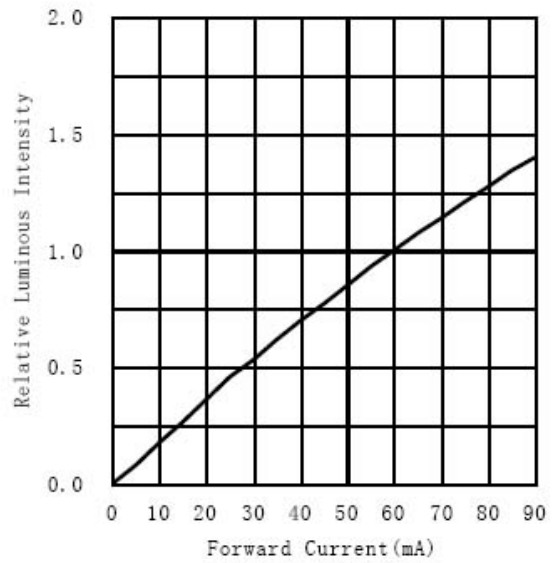
- 1.1/10 Duty Cycle, 0.1ms Pulse Width.
- 2.The above forward voltage measurement allowance tolerance ±0.1V
- 3.The above color coordinates measurement allowance tolerance ±0.003

Typical optical characteristics curves:

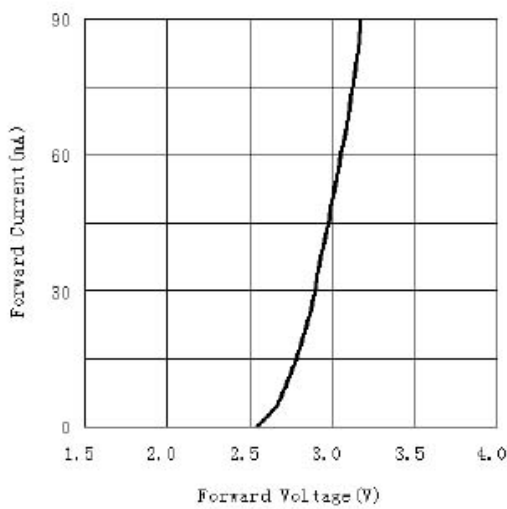
Ambient Temperature VS. Forward Current



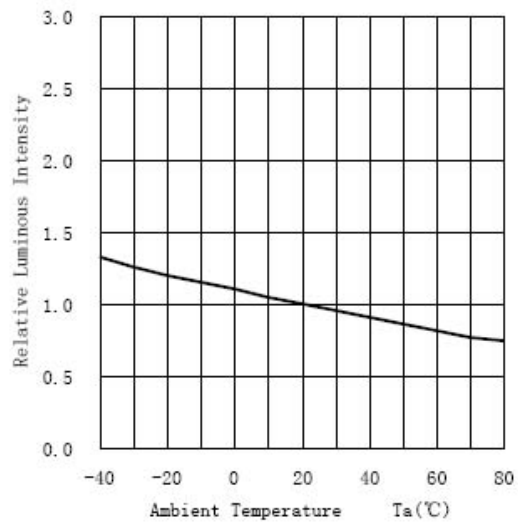
Forward Current VS. Relative Intensity



Forward Voltage VS. Forward Current



Ambient Temperature VS. Relative Intensity



Relative spectral emission

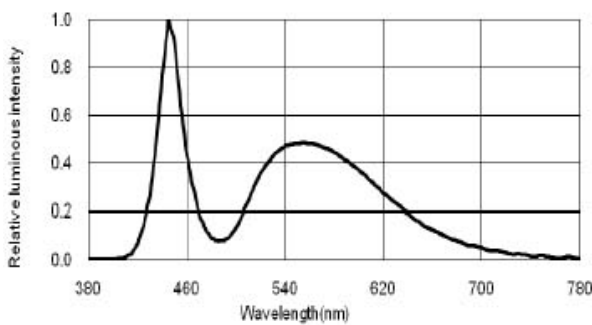


Diagram characteristics of radiation

