

# Dr. Licht GmbH

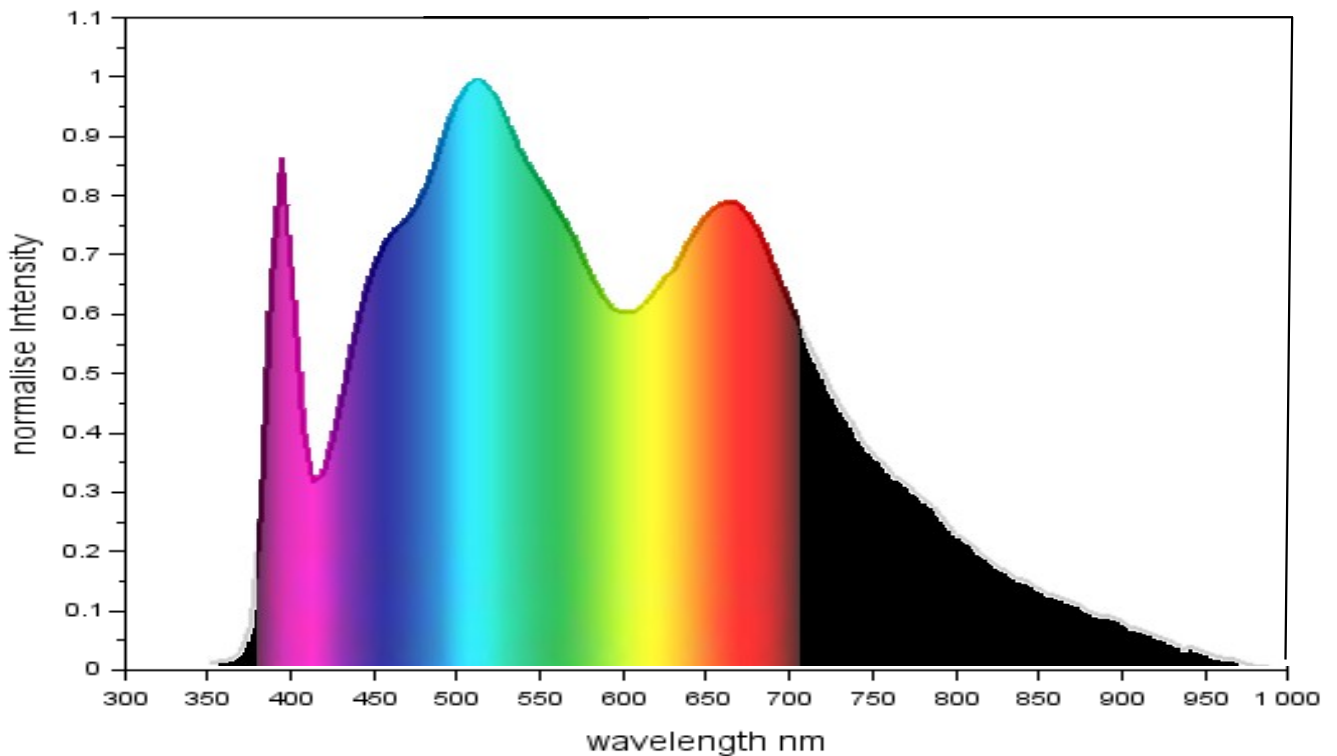
Vorlaenderweg 9 51588 Nuembrecht Germany  
Tele.: +49 2295 9035459 info@dr-licht.de



## Features

- One 380nm LED power the VIS and NIR fluoreszenz
- Fluoreszenz light without thermal radiation shift ideal for spectral anaytic
- Long operating life
- Zene diode is built in the protective circuit against static electricity
- Qualified according to JEDEC moisture sensitivity Level 2

## Spectra recorded with speggVIS22



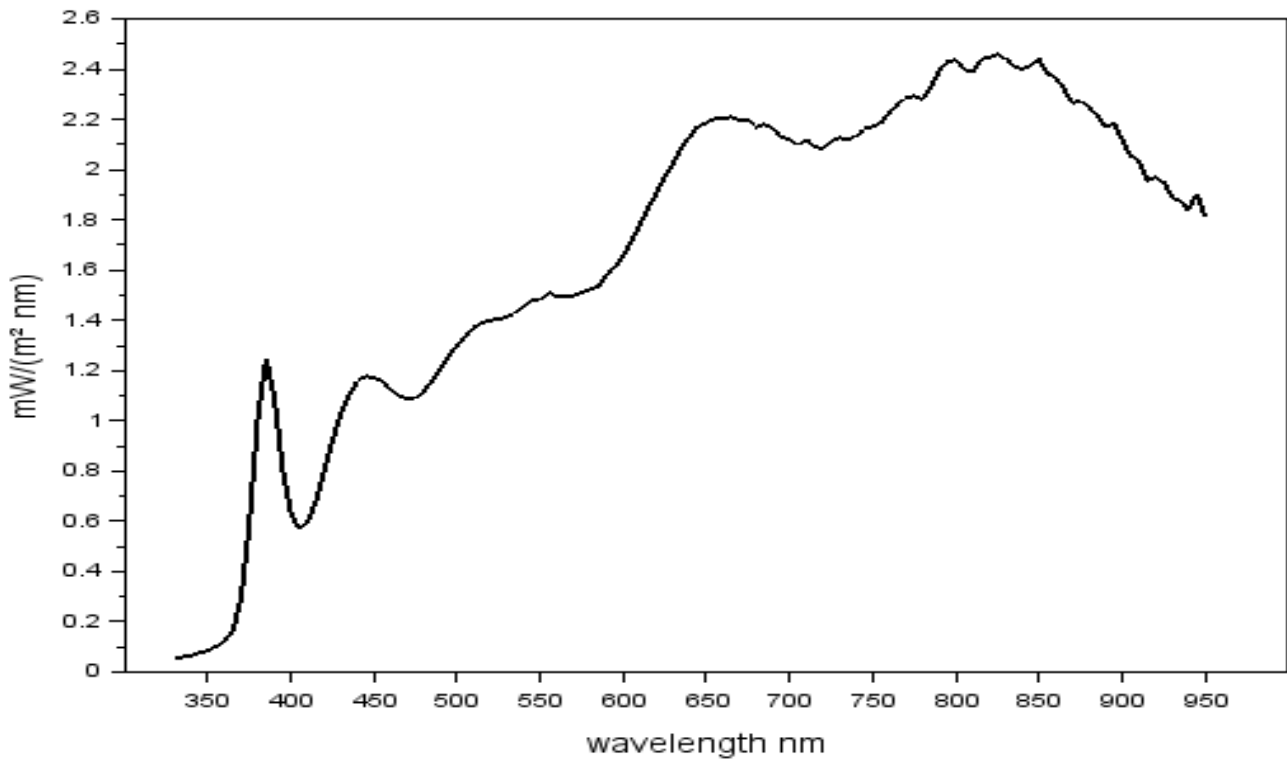
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## Spectral Power Distribution in mW / (m<sup>2</sup> nm) 150mA, 2cm distance



Absolute Maximum Ratings at Ta=25°C		
Parameter	Value	Unit
Forward Current	150	mA
Peak Forward Current	200	mA
Reverse Voltage	5	V
Electrostatic Discharge	2000	V
Operating Temperature	from -40 to +85	°C
Storage Temperature	from -40 to +100	°C



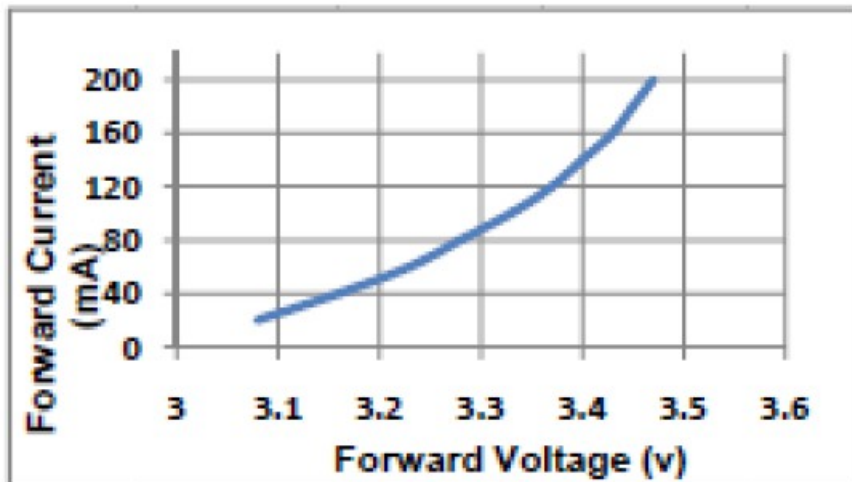
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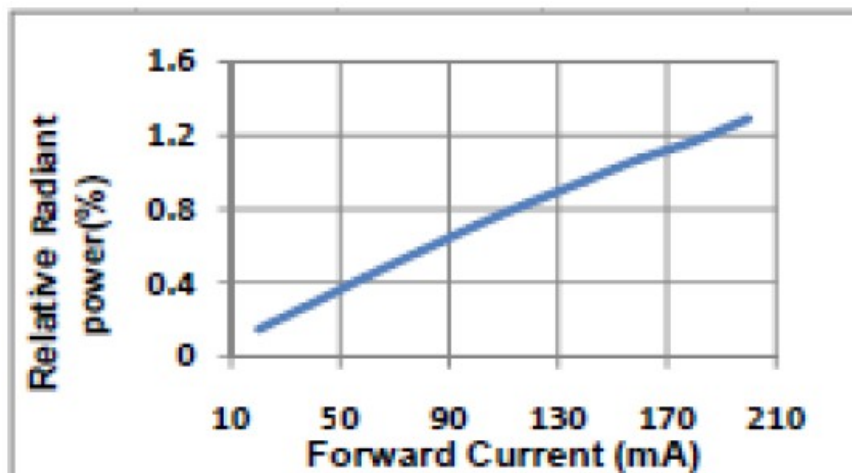
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## Forward Voltage vs. Forward Current Intensity



## Forward Current vs. Relative Power

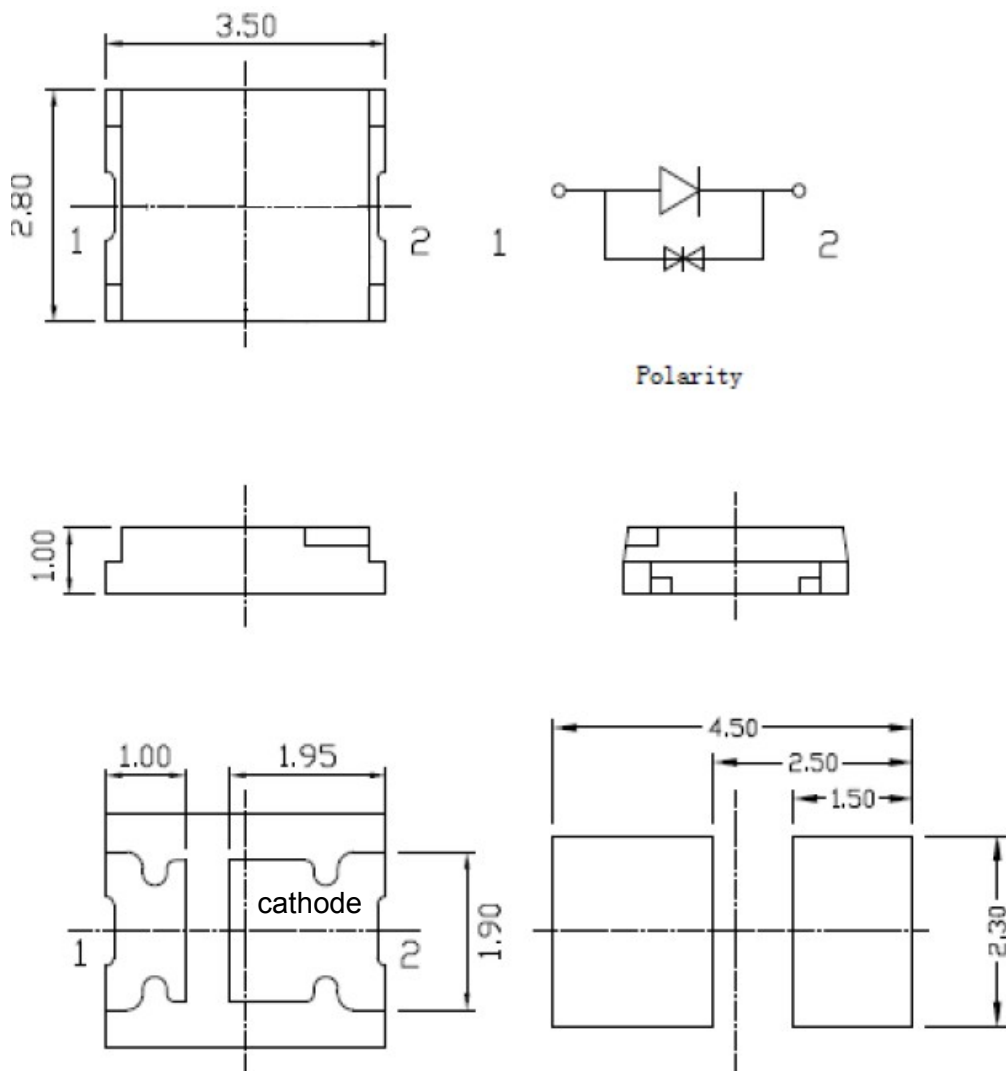


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## Precaution for Use

### 1. Cautions

- This device is a UV LED, which radiates UV light during operation.
- DO NOT look directly into the UV light or look through the optical system. To prevent in adequate exposure of UV radiation, wear UV protective glasses.

### 2. Static Electricity

- The LEDs are very sensitive to Static Electricity and surge voltage. So it is recommended that a wrist band or an anti-electrostatic glove be used when handling the LEDs.
- All devices, equipment and machinery must be grounded properly. It is recommended that precautions should be taken against surge voltage to the equipment that mounts the LEDs.

### 3. Heat Generation

- The powered LEDs generate heat. Heat dissipation should be considered in the application design to avoid the environmental conditions for operation in excess of the absolute maximum ratings.

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## Surface Mount Condition

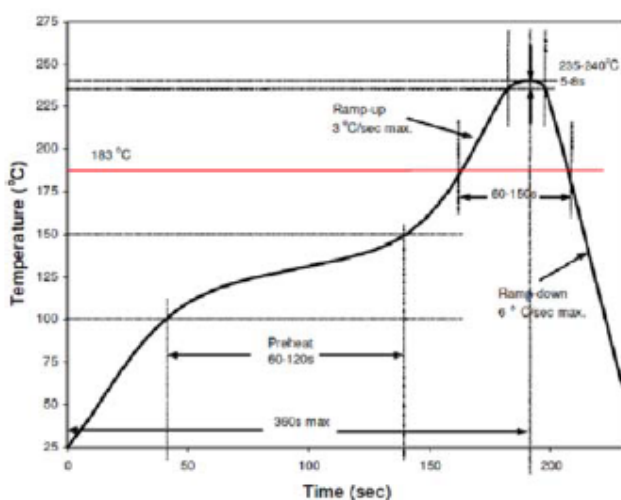
In automatic mounting of the SMD LEDs on printed circuit boards, any bending, expanding and pulling forces or shock against the SMD LEDs should be kept min. to prevent them from electrical failures and mechanical damages of the devices.

## Soldering Reflow

1. Soldering of the SMD LEDs should conform to the soldering condition in the individual specifications.
2. SMD LEDs are designed for Reflow Soldering.
3. In the reflow soldering, too high temperature and too large temperature gradient such as rapid heating/cooling may cause electrical & optical failures and damages of the devices.
4. We cannot guarantee the LEDs after they have been assembled using the solder dipping method.
5. There is possibility that the brightness of LEDs is decreased, which is influenced by heat or ambient atmosphere during reflow. It is recommended to use the nitrogen reflow method.
6. After LEDs have been soldered, repairs should not be done. As repair is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will be damaged by repairing or not.
7. Reflow soldering should not be done more than two times.

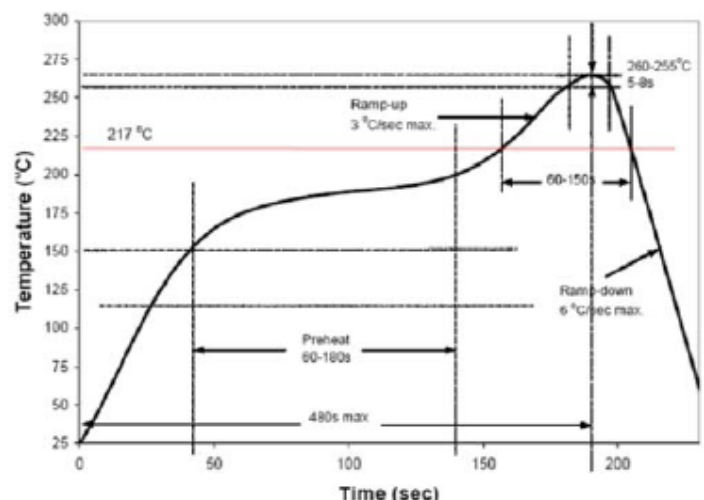
### (1) Lead Solder

Classification Reflow Profile (JEDEC J-STD-020C)



### (2) Lead-Free Solder

Classification Reflow Profile (JEDEC J-STD-020C)



### (3) Manual Soldering Conditions

- a) Lead Solder: max. 300°C for max. 3sec., and only one time.
- b) Lead-Free Solder: max. 350°C for max. 3sec., and only one time.