

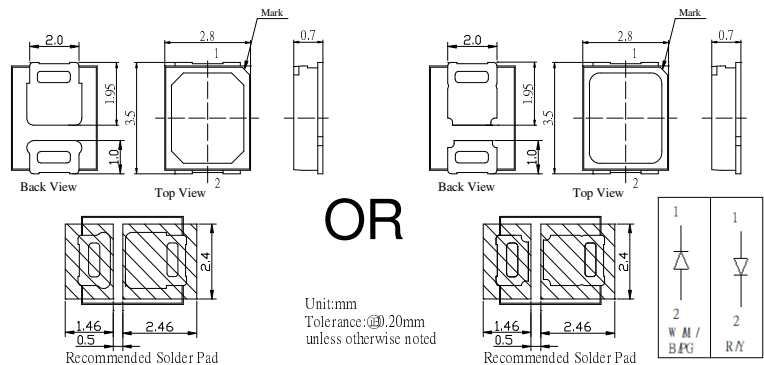
■Features

- High luminous flux
- Super energy efficiency
- Long lifetime operation
- Superior UV Resistance
- W5/W4/M5 Ra>80

■Applications

- Read lights (car, bus, aircraft)
- Portable (flashlight, bicycle)
- Bollards / Security / Garden
- Traffic signaling / Beacons
- Indoor / Outdoor commercial lights
- Automotive ext

■Outline Dimension

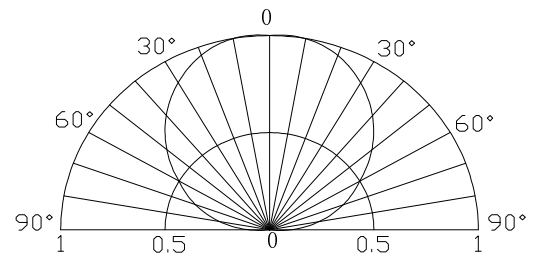


■Absolute Maximum Rating

(Ta=25°C)

| Item | Symbol | Value | | Unit |
|----------------------------|------------------|-------------|-----|------|
| | | W/M/B/PG | Y/R | |
| DC Forward Current | I _F | 200 | 200 | mA |
| Pulse Forward Current# | I _{FP} | 250 | 250 | mA |
| Reverse Voltage | V _R | 5 | 5 | V |
| Power Dissipation | P _D | 800 | 600 | mW |
| Operating Temperature | T _{opr} | -30 ~ +85 | | °C |
| Storage Temperature | T _{stg} | -40~ +100 | | °C |
| Lead Soldering Temperature | T _{sol} | 260°C/10sec | | - |

■Directivity



#Pulse width Max.10ms Duty ratio max 1/10

■Electrical -Optical Characteristics

(Ta=25°C)

| Part Number | Color | | V _F (V)* | | | I _R (μA) | Φ _v (lm)* | | | CCT(K)\Wd(nm)* | | | 2θ1/2(deg) |
|-------------------|------------|----|-----------------------|------|------|---------------------|----------------------|-----------------------|------|-----------------|------|------|------------|
| | | | Min. | Typ. | Max. | | Max. | Min. | Typ. | Max. | Min. | Typ. | |
| | | | I _F =150mA | | | V _R =5V | | I _F =150mA | | | | | |
| OSW52835C1H-150mA | Cool White | W | 3.0 | 3.3 | 4.0 | 10 | 55 | 60 | - | CCT:9000~14000K | | | 120 |
| OSW42835C1H-150mA | White | W | 3.0 | 3.3 | 4.0 | 10 | 55 | 60 | - | CCT:4500~7000K | | | 120 |
| OSM52835C1H-150mA | Warm White | M | 3.0 | 3.3 | 4.0 | 10 | 50 | 55 | - | CCT:2800~4500K | | | 120 |
| OSB42835C1H-150mA | Blue | B | 3.0 | 3.3 | 4.0 | 10 | 6 | 10 | - | 455 | 460 | 470 | 120 |
| OSG52835C1H-150mA | Pure Green | PG | 3.0 | 3.3 | 4.0 | 10 | 25 | 30 | - | 520 | 525 | 530 | 120 |
| OSY52835C1H-150mA | Yellow | Y | 2.0 | 2.3 | 3.0 | 10 | 10 | 15 | - | 585 | 590 | 595 | 120 |
| OSR52835C1H-150mA | Red | R | 2.0 | 2.3 | 3.0 | 10 | 10 | 15 | - | 620 | 625 | 630 | 120 |

*1 Tolerance of measurements of chromaticity coordinate is ±10%

*2 Tolerance of measurements of dominant wavelength is ±1nm

*3 Tolerance of measurements of luminous flux is ±15%

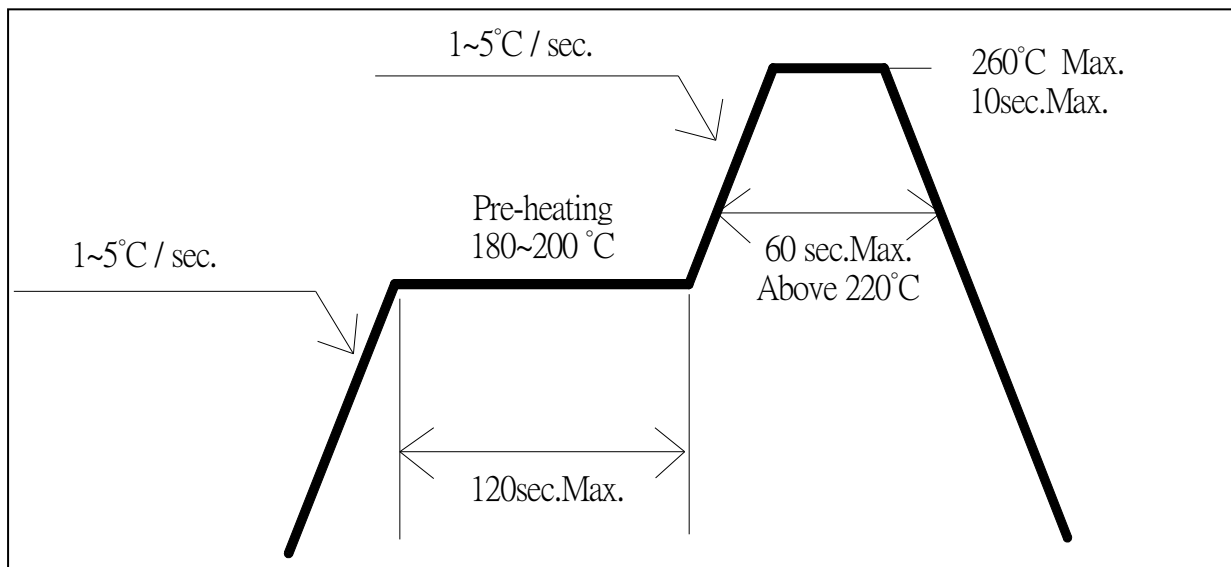
*4 Tolerance of measurements of forward voltage is ±0.1V

*5. Don't drive at rated current more than 5s without heat sink for Power Top H emitter series.

■ **Soldering Conditions**

| Reflow Soldering | | Hand Soldering | |
|------------------|------------------------------|----------------------------|----------------------------------------------|
| Pre-Heat | 180 ~ 200°C | Temperature Soldering time | 350°C Max. 3 sec. Max. (one time only) |
| Pre-Heat Time | 120 sec. Max. | | |
| Peak temperature | 260°C Max. | | |
| Dipping Time | 10 sec. Max. | | |
| Condition | Refer to Temperature-profile | | |

• **Reflow Soldering Condition (Lead-free Solder)**



*Recommended soldering conditions vary according to the type of LED

*Although the recommended soldering conditions are specified in the above table, reflow, or hand soldering at the lowest possible temperature is desirable for the LEDs.

*A rapid-rate process is not recommended for cooling the LEDs down from the peak temperature.

• All SMD LED products are pb-free soldering available.

• Occasionally there is a brightness decrease caused by the influence of heat or ambient atmosphere during air reflow. It is recommended that the User use the nitrogen reflow method.

• Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.

• Reflow soldering should not be done more than two times.

• When soldering, do not put stress on the LEDs during heating.

• After soldering, do not warp the circuit board.