

## 2.0\*1.25\*0.8mm Red & Yellow Green SMD

## OSRG0805C1E-0.8T

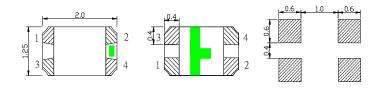
#### **■**Features

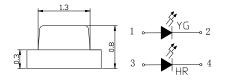
- Bi-Color
- Super high brightness of surface mount LED
- Water Clear Flat Mold
- Compact package outline (LxWxT) of 2.0mm x 1.25mm x 0.8mm
- Compatible to IR reflow soldering.

## **■**Applications

- Backlighting (switches, keys, etc.)
- Marker lights (e.g. steps, exit ways, etc.)

### **■Outline Dimension**





#### Notes:

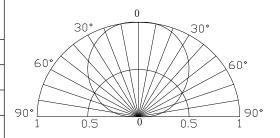
- 1. All dimensions are in millimeters ;
- 2. Tolerance is ± 0.10 mm unless otherwise noted.

## ■Absolute Maximum Rating

|   | (1a= | 23 | C) |
|---|------|----|----|
| Т |      |    |    |

| Item                       | Crimb al          | Va          | Unit         |      |  |  |  |  |
|----------------------------|-------------------|-------------|--------------|------|--|--|--|--|
| nem                        | Symbol            | Red         | YG           | Unit |  |  |  |  |
| DC Forward Current         | $I_{\mathrm{F}}$  | 30          | 30           | mA   |  |  |  |  |
| Pulse Forward Current*     | $I_{\mathrm{FP}}$ | 100         | 100          | mA   |  |  |  |  |
| Reverse Voltage            | $V_R$             | 5           | 5            | V    |  |  |  |  |
| Power Dissipation          | P <sub>D</sub>    | 78          | 78           | mW   |  |  |  |  |
| Operating Temperature      | Topr              | -40         | -40 ~ +85    |      |  |  |  |  |
| Storage Temperature        | Tstg              | -40~        | $^{\circ}$ C |      |  |  |  |  |
| Lead Soldering Temperature | Tsol              | 260°C/10sec |              | -    |  |  |  |  |
|                            |                   |             |              |      |  |  |  |  |

## **■**Directivity



## **■**Electrical -Optical Characteristics

### (Ta=25°C)

|                  | Color        |    | $V_{F}(V)$           |      | $I_R(\mu A)$ | Iv(mcd)              |      |      | λD(nm) |      |      | 2θ1/2(deg) |      |     |
|------------------|--------------|----|----------------------|------|--------------|----------------------|------|------|--------|------|------|------------|------|-----|
| Part Number      |              |    | Min.                 | Тур. | Max.         | Max.                 | Min. | Тур. | Max.   | Min. | Тур. | Max.       | Тур. |     |
|                  |              |    | I <sub>F</sub> =20mA |      | $V_R=5V$     | I <sub>F</sub> =20mA |      |      |        |      |      |            |      |     |
| OCDD0005C1F 0 0T | Red          | R  |                      | 1.8  | 2.1          | 2.6                  | 10   | 80   | 150    | -    | 617  | 625        | 630  | 120 |
| OSRB0805C1E-0.8T | Yellow Green | YG |                      | 1.8  | 2.1          | 2.6                  | 10   | 30   | 50     | -    | 565  | 570        | 575  | 120 |

<sup>\*1</sup> Tolerance of measurements of dominant wavelength is  $\pm 1\,\mathrm{nm}$ 







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<sup>\*</sup>Pulse width Max 0.1ms, Duty ratio max 1/10

<sup>\*2</sup> Tolerance of measurements of luminous intensity is +15%

<sup>\*3</sup> Tolerance of measurements of forward voltage is  $\pm 0.1$ V



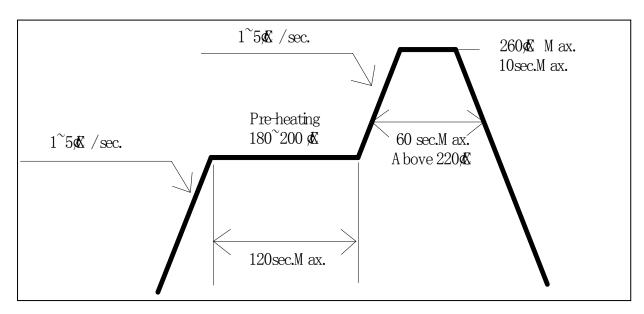
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#### **OSRG0805C1E-0.8T**

#### **■** Soldering Conditions

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

## • 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.

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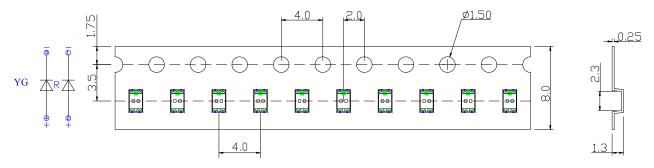


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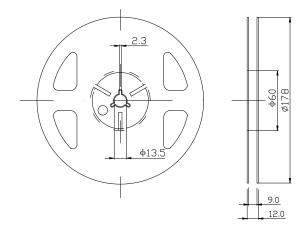


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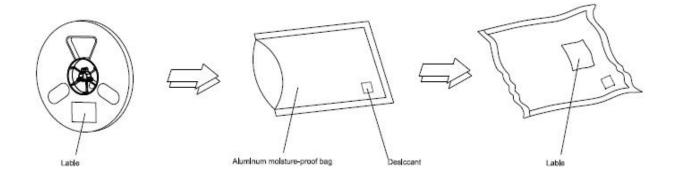
## **TAPING**



## ■ Reel Dimensions



## ■ Moisture Resistant Packaging



### Notes:

- 1. Unit: mm
- 2. 3000pcs/Reel

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