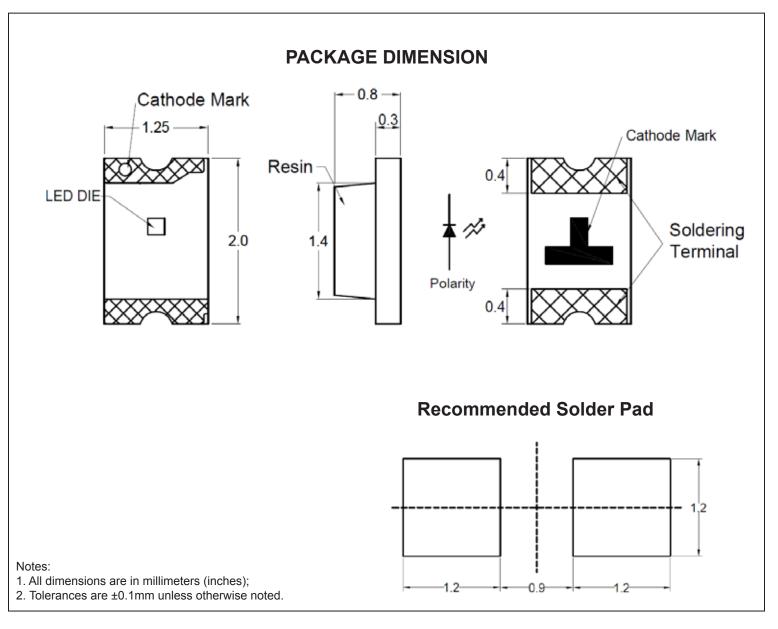


# **SPECIFICATIONS**



| Part Number | Chip Material | Color of Emission | Lens Type   | Viewing Angle |
|-------------|---------------|-------------------|-------------|---------------|
| CS85BG1C    | GaP           | Green             | Water Clear | 160°          |



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CS85BG1C



# **ABSOLUTE MAXIMUM RATINGS**

| Parameter                                 | Symbol           | Value                   | Unit |
|---|------------------|-------------------------|------|
| Forward current                           | lf               | 25                      | mA   |
| Reverse current @ 5V                      | lr               | 10                      | μA   |
| Power dissipation                         | Pd               | 65                      | mW   |
| Operating temperature range               | Тор              | -40~+85                 | °C   |
| Storage temperature range                 | Tstg             | -40~+90                 | °C   |
| Peak pulsing current (1/10 duty f= 10KHz) | lfp              | 120                     | mA   |
| Soldering Temperature                     | T <sub>SOL</sub> | Max 260°C for 5 sec Max |      |

# **OPTICAL-ELECTRICAL CHARACTERISTICS**

Value Parameter Symbol **Test Condition** Unit Min Max Тур Wavelength at peak emission λpeak  $I_F = 20 \text{mA}$ nm \_ 565 Spectral half bandwidth  $I_{\rm F} = 20 {\rm mA}$ ∆λ \_ nm 30 Dominant wavelength λdom  $I_{\rm F} = 20 {\rm mA}$ 566 573 576 nm Forward Voltage Vf V  $I_{\rm F} = 20 {\rm mA}$ 1.5 2.4 \_ Luminous intensity lv  $I_F = 20 \text{mA}$ 5.0 10 mcd \_ Viewing angle at 50% lv 20 1/2  $I_F = 20 \text{mA}$ 160 Deg \_

\*NOTE: 1. The forward voltage data did not including ±0.1V tolerance 2. The luminous intensity data did not including ±15% tolerance



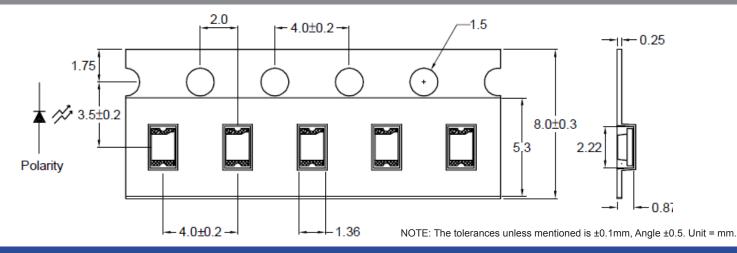
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# (TA=25°C)

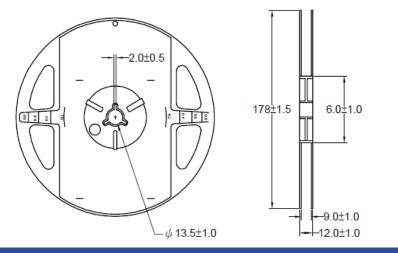
# (TA=25°C)

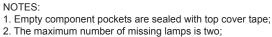


# DIMENSIONS OF TAPE (Unit: mm)



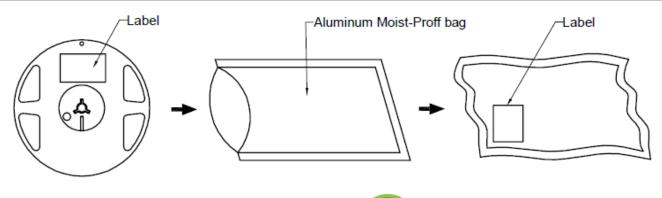
# **REEL DIMENSIONS**





- 3. The cathode is oriented towards the tape sprocket hole.
- 4. 4,000pcs/Reel

# PACKAGING SPECIFICATION





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# **OPTICAL CHARACTERISTIC CURVES**

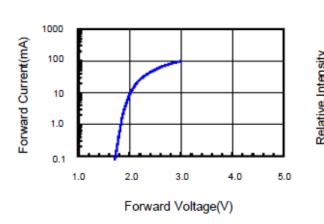


Fig.1 Forward current vs. Forward Voltage

### Fig.3 Forward Voltage vs. Temperature

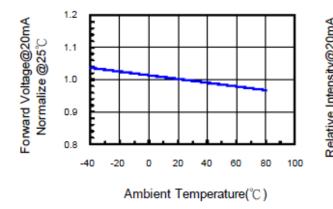


Fig.5 Relative Intensity vs. Wavelength

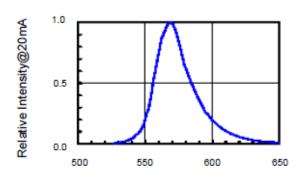


Fig.2 Relative Intensity vs. Forward Current

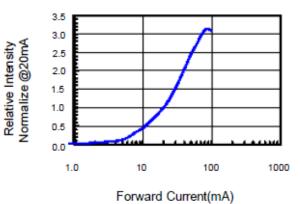
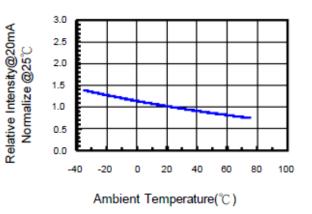
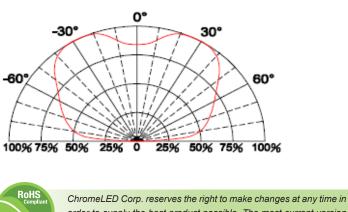


Fig.4 Relative Intensity vs. Temperature



### Fig.6 Directive Radiation





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# SOLDERING CONDITIONS - LAMP TYPE LED

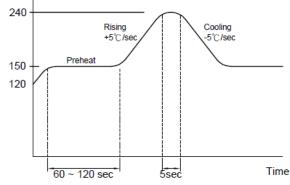
### 1. Hand Solder

Basic spec is  $\leq 280^{\circ}$ C 3 sec one time only.

# Soldering heat Max. 260°C \_\_\_\_\_\_ 245±5°C within 5 sec

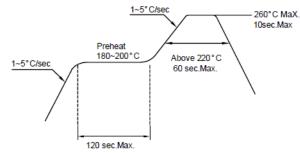
### Temp. (°C) 240

3-1. LEAD Reflow Solder



# 3-2 PB-Free Reflow Solder

2. Wave Solder



Reflow Soldering should not be done more than two times.

# Brighness Code for Visible SMD

| Group | (mcd) at 20mA |      |  |
|-------|---------------|------|--|
|       | MIN           | MAX  |  |
| J     | 5             | 8    |  |
| К     | 8             | 12.5 |  |
| L     | 12.5          | 20   |  |

# **Color Code for Visible SMD**

| Group | (mcd) at 20mA |     |  |
|-------|---------------|-----|--|
|       | MIN           | MAX |  |
| 6     | 566           | 568 |  |
| 7     | 568           | 570 |  |
| 8     | 570           | 572 |  |
| 9     | 572           | 574 |  |
| 10    | 574           | 576 |  |



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