

# Round LED

## 3mm, Green

multicomp<sup>PRO</sup>

RoHS  
Compliant



### Features

- Low power consumption
- Excellent product quality and reliability
- Lead-free device

### Applications

- Electronic signs and signals
- Bright ambient lighting conditions
- Backlights.
- General purpose indicators

| Device Selection Guide |          |               |             |
|------------------------|----------|---------------|-------------|
| Part No.               | Chip     |               | Lens color  |
| MP008525               | Material | Emitted color | Water Clear |
|                        | InGaN    | Green         |             |

| Absolute Maximum Ratings: (T <sub>A</sub> = 25°C) |                  |                     |      |
|---|------------------|---------------------|------|
| Parameter   | Symbol           | Value               | Unit |
| Power Dissipation                                 | P <sub>D</sub>   | 120                 | mW   |
| Forward Current                                   | I <sub>F</sub>   | 30                  | mA   |
| Peak Forward Current <sup>*1</sup>                | I <sub>FP</sub>  | 100                 | mA   |
| Reverse Voltage                                   | V <sub>R</sub>   | 5                   | V    |
| Operating Temperature                             | T <sub>OPR</sub> | -40 to +85          | °C   |
| Storage Temperature                               | T <sub>STG</sub> | -40 to +85          | °C   |
| Soldering Temperature <sup>*2</sup>               | T <sub>SOI</sub> | 260°C For 5 Seconds |      |

Notes:

\*1: Pulse width ≤ 0.1ms, Duty cycle ≤ 1/10

\*2: 1.6mm below package base.

Newark.com/multicomp-pro  
Farnell.com/multicomp-pro  
Element14.com/multicomp-pro

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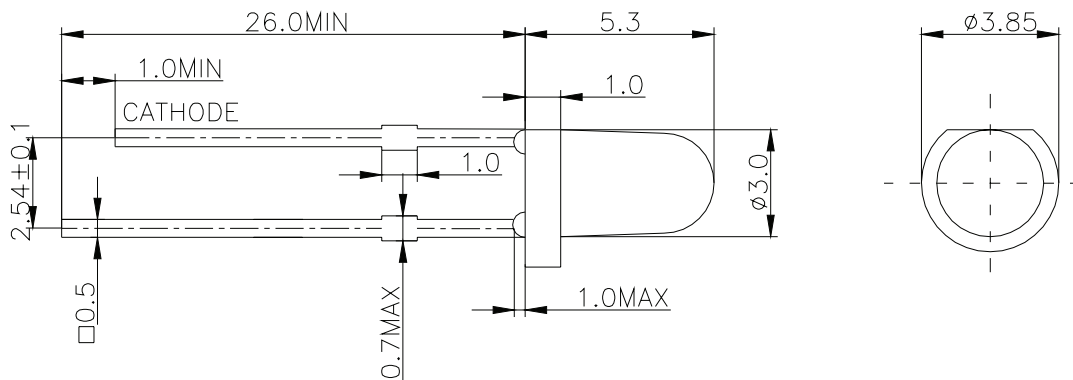
| Electrical / Optical Characteristics at T <sub>A</sub> = 25°C |                   |      |      |     |      |                 |         |
|---|-------------------|------|------|-----|------|-----------------|---------|
| Parameter   | Symbol            | Min. | Typ. | Max | Unit | Test Conditions |         |
| Forward Voltage   | V <sub>F</sub>    | —    | 3.2  | —   | V    | IF=20mA         |         |
| Reverse Current   | I <sub>R</sub>    |      | —    | 10  | μA   | VR=5V           |         |
| Dominant Wavelength   | λ <sub>d</sub>    |      | 525  | —   | —    | nm              | IF=20mA |
| Peak Wavelength   | λ <sub>P</sub>    |      | 515  |     |      | nm              |         |
| Spectral line Half-width                                      | Δλ                |      | 30   |     |      | nm              |         |
| Luminous Intensity  | I <sub>v</sub>    |      | 8000 |     |      | mcd             |         |
| Power Angle   | 2θ <sub>1/2</sub> |      | 20   |     |      | Deg.            |         |

**Remarks:**

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or dominant wavelength), the typical accuracy of the sorting process is as follows:

1. Dominant Wavelength: +/-1nm
2. Chromatic Coordinates: +/-0.01
3. Luminous Intensity: +/-15%
4. Forward Voltage: +/-0.1V
5. The design and working current for LED is not less than 2mA.

### Dimensions



Dimensions : Millimetres

**Notes:**

1. Tolerance is ±0.25 unless otherwise noted.
2. Lead spacing is measured where the leads emerge from the package.
3. Specifications are subject to change without notice.

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### VF Rank

| Rank | VF(V) |     | Condition |
|------|-------|-----|-----------|
|      | Min   | Max |           |
| F2G1 | 2.8   | 3   | IF=20mA   |
| G2H1 | 3     | 3.2 |           |
| H2I1 | 3.2   | 3.4 |           |
| I2J1 | 3.4   | 3.6 |           |

Tolerance :  $\pm 0.1V$

### $\lambda D$ Rank

| Rank | $\lambda D$ (nm) |     | Condition |
|------|------------------|-----|-----------|
|      | Min              | Max |           |
| GB   | 520              | 522 | IF=20mA   |
| GC   | 522              | 524 |           |
| GD   | 524              | 526 |           |
| GE   | 526              | 528 |           |
| GF   | 528              | 530 |           |

Tolerance :  $\pm 0.1nm$

### IV Rank

| Rank | IV(mcd) |       | Condition |
|------|---------|-------|-----------|
|      | Min     | Max   |           |
| Q    | 5700    | 8000  | IF=20mA   |
| R    | 8000    | 12000 |           |

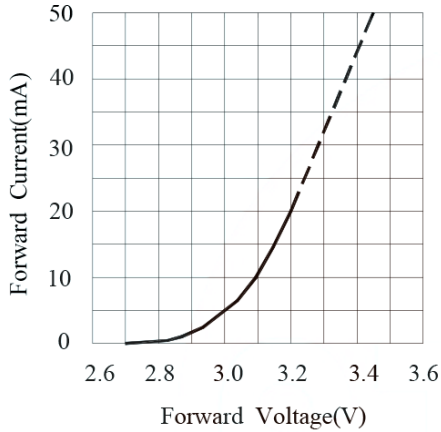
Tolerance :  $\pm 15\%$

# Round LED

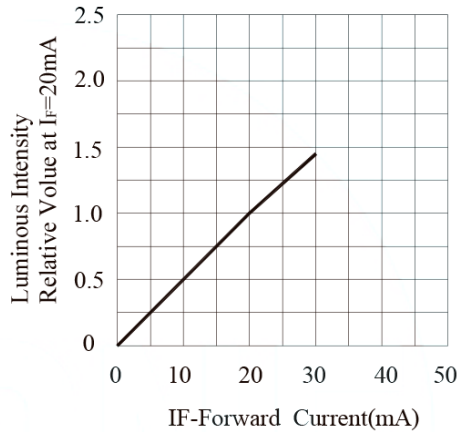
## 3mm, Green

### Typical Electrical/Optical Characteristics Curves

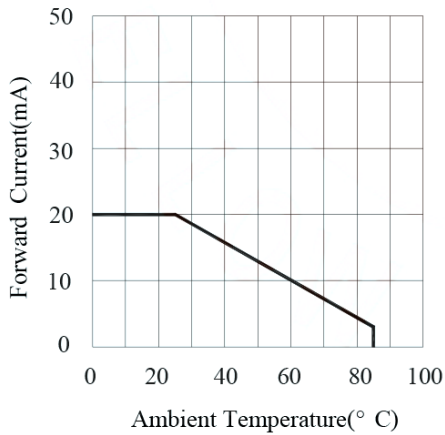
( Ta=25°C Unless Otherwise Noted )



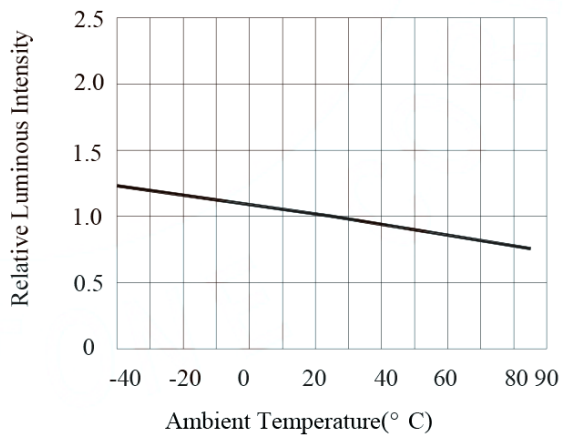
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



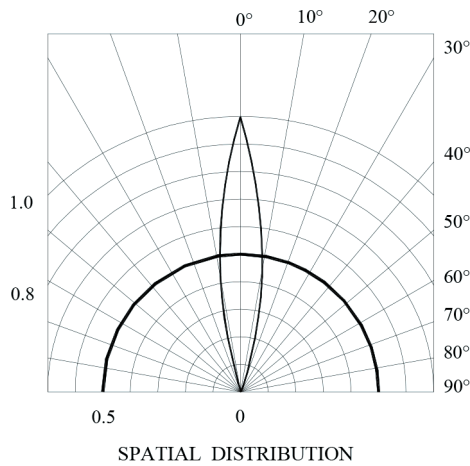
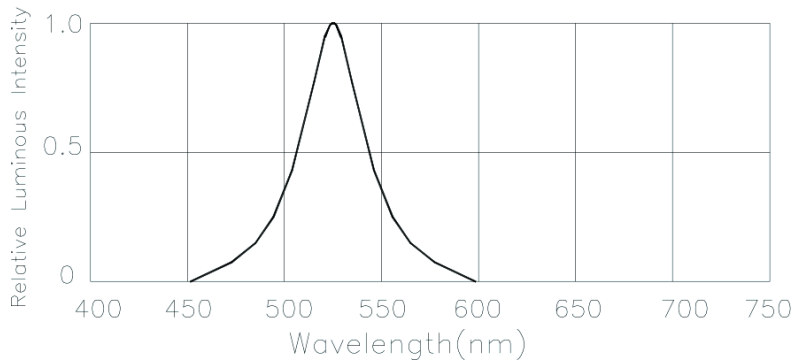
FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

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### Part Number Table

| Description  | Part Number |
|--|-------------|
| Round LED, Green, 515nm, 20°,8000mcd, Through hole | MP008525    |

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