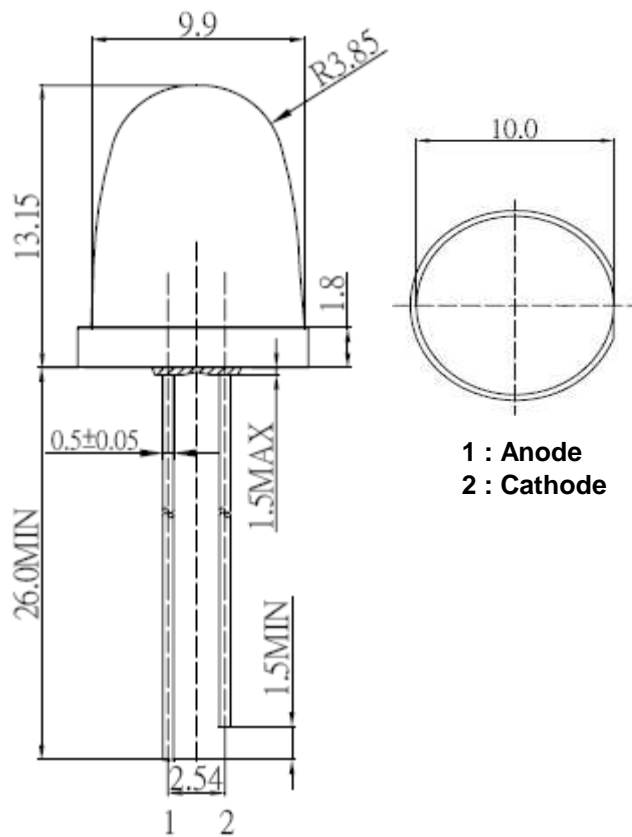




**Applications**

- Electronic Signs and Signals
- Small Area Illuminations
- Back Lighting
- Other Lighting

**Technical Drawing**



1 : Anode  
 2 : Cathode

**Notes :**

All dimensions in mm tolerance is ± 0.1mm unless otherwise noted.

|                             |                 |
|-----------------------------|-----------------|
| <b>Bullet LED<br/>Green</b> |                 |
| Part No.:                   | <b>M13B4002</b> |
| Customer:                   |                 |

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 06.12.2009 |
| APPD: | Ping |      |       | FINISH | Hui  | Sheet | 1 from 6   |



**Absolute Maximum Ratings**

Ta=25°C

| Item                   | Symbol            | ---        | Unit |
|------------------------|-------------------|------------|------|
| Power Dissipation      | P <sub>D</sub>    | 108        | mW   |
| DC Forward Current     | I <sub>F</sub>    | 30         | mA   |
| Pulsed Forward Current | I <sub>FP</sub> * | 100        | mA   |
| Reverse Voltage        | V <sub>R</sub>    | 5          | V    |
| Operating Temperature  | T <sub>OP</sub>   | -30 to 85  | °C   |
| Storage Temperature    | T <sub>ST</sub>   | -40 to 100 | °C   |

\* 0.1 msec pulse, 10% duty cycle

**Electrical / Optical Characteristics**

I<sub>F</sub>=20mA Ta=25°C

| Ermitting Color      | Green             |       |                |
|----------------------|-------------------|-------|----------------|
| Material             | ---               |       |                |
| Forward Voltage      | typ.              | 3.1   | V <sub>F</sub> |
|                      | max.              | 3.6   | V <sub>F</sub> |
| Wavelength<br>typ.   | λ <sub>D</sub>    | 520   | nm             |
|                      | λ <sub>P</sub>    | 525   | nm             |
|                      | Δλ                | ---   | nm             |
| Color Temperature    | min.              | ---   | K              |
|                      | max.              | ---   | K              |
| Luminous Intensity * | min.              | 36000 | mcd            |
|                      | typ.              | 40000 | mcd            |
| Reverse Current      | max.              | 10    | μA             |
| Viewing Angle        | 2Θ <sub>1/2</sub> | 8     |                |

\* Per NIST standards

**Bullet LED**  
**Green**

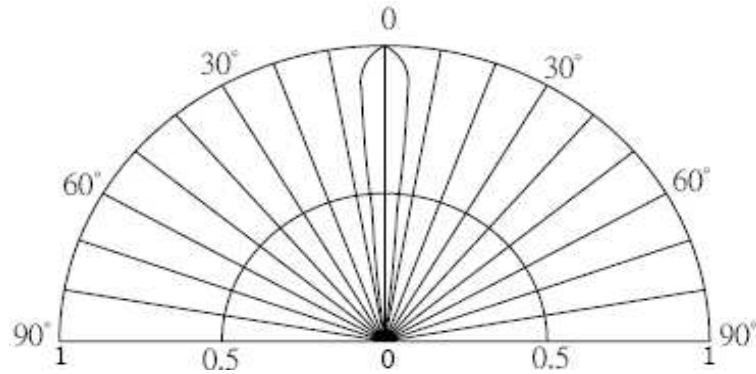
Part No.: **M13B4002**

Customer:

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 06.12.2009 |
| APPD: | Ping |      |       | FINISH | Hui  | Sheet | 2 from 6   |



**Directive Characteristics**



**Bullet LED  
Green**

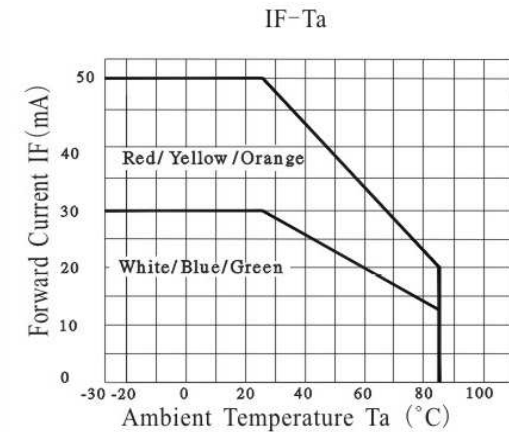
Part No.: **M13B4002**

Customer:

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 06.12.2009 |
| APPD: | Ping |      |       | FINISH | Hui  | Sheet | 3 from 6   |



**Typical Characteristics**



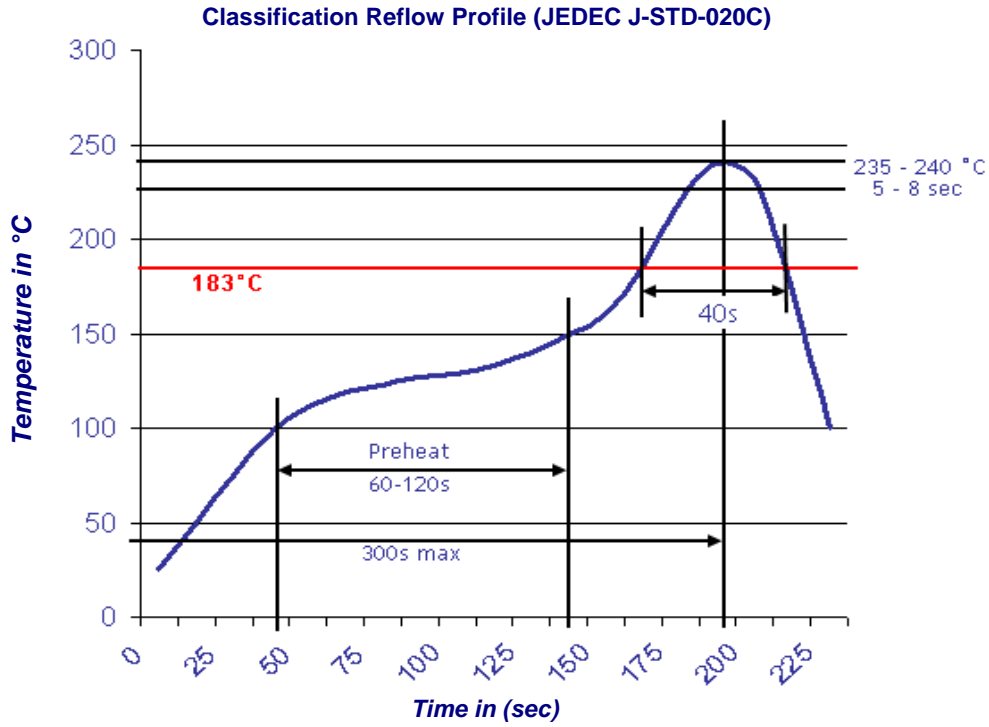
|                             |                 |
|-----------------------------|-----------------|
| <b>Bullet LED<br/>Green</b> |                 |
| Part No.:                   | <b>M13B4002</b> |
| Customer:                   |                 |

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 06.12.2009 |
| APPD: | Ping |      |       | FINISH | Hui  | Sheet | 4 from 6   |



**Solder Condition**

**Lead Free Solder**



|                             |                 |
|-----------------------------|-----------------|
| <b>Bullet LED<br/>Green</b> |                 |
| Part No.:                   | <b>M13B4002</b> |
| Customer:                   |                 |

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 06.12.2009 |
| APPD: | Ping |      |       | FINISH | Hui  | Sheet | 5 from 6   |



**Color table curve**



|                             |                 |
|-----------------------------|-----------------|
| <b>Bullet LED<br/>Green</b> |                 |
| Part No.:                   | <b>M13B4002</b> |
| Customer:                   |                 |

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 06.12.2009 |
| APPD: | Ping |      |       | FINISH | Hui  | Sheet | 6 from 6   |

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