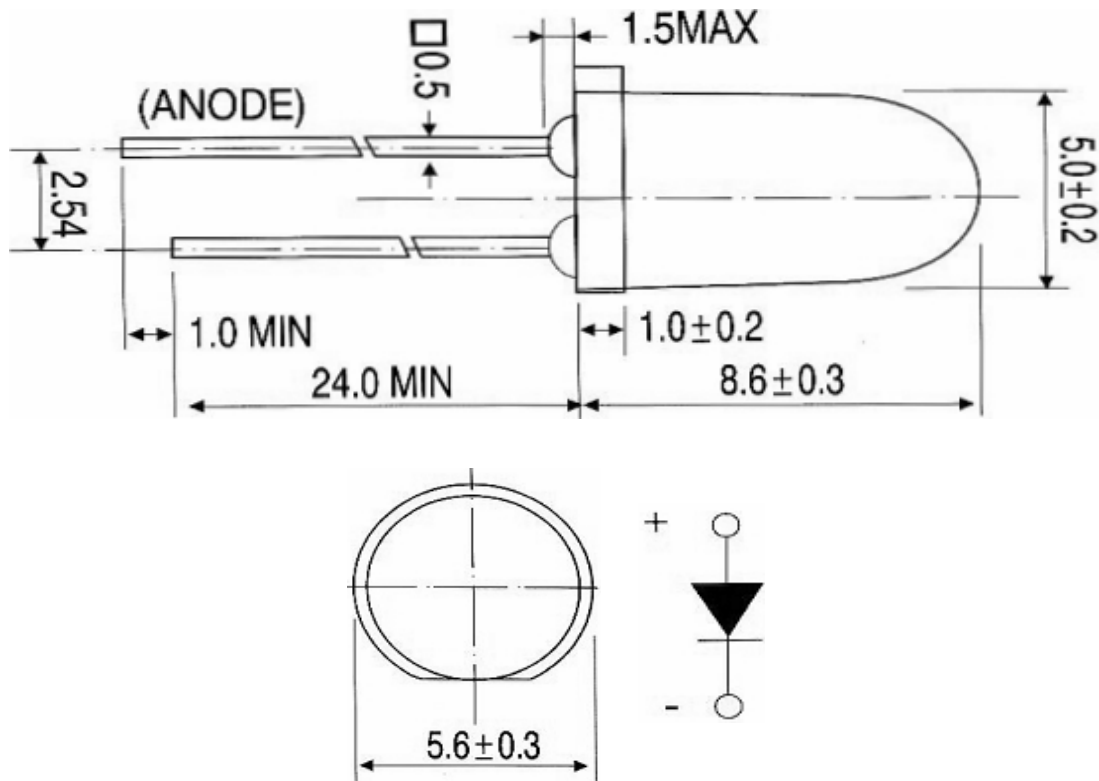




**Applications**

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

**Technical Drawing**



**Notes :**

All dimensions in mm tolerance is  $\pm 0.1\text{mm}$  unless otherwise noted.

|                             |                 |
|-----------------------------|-----------------|
| <b>Round LED<br/>Yellow</b> |                 |
| Part No.:                   | <b>M13E5040</b> |
| Customer:                   |                 |

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 28.06.2010 |
| APPD: | Ping |      |       | FINISH | Hui  | Sheet | 1 from 6   |



**Absolute Maximum Ratings**

| <i>Item</i>            | <i>Symbol</i>     | <i>AlGaInP</i> | <i>Unit</i> |
|------------------------|-------------------|----------------|-------------|
| Power Dissipation      | P <sub>D</sub>    | 140            | 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>   | -40 to 80      | °C          |
| Storage Temperature    | T <sub>ST</sub>   | -40 to 100     | °C          |

\* 0.1 msec pulse, 10% duty cycle

**Electrical / Optical Characteristics**

|                             |                   |        |                |
|-----------------------------|-------------------|--------|----------------|
| <b>Emitting Color</b>       | Yellow            |        |                |
| <b>Material</b>             | AlGaInP           |        |                |
| <b>Forward Voltage</b>      | typ.              | 1.9    | V <sub>F</sub> |
|                             | max.              | 2.3    | V <sub>F</sub> |
| <b>Wavelength typ.</b>      | λ <sub>D</sub>    | 580    | nm             |
|                             | λ <sub>P</sub>    | 595    | nm             |
|                             | Δλ                | ---    | nm             |
| <b>Color Temperature</b>    | min.              | ---    | K              |
|                             | max.              | ---    | K              |
| <b>Luminous Intensity *</b> | min.              | 10000  | mcd            |
|                             | typ.              | 12000  | mcd            |
| <b>Reverse Current</b>      | max.              | ---    | μA             |
| <b>Viewing Angle</b>        | 2θ <sub>1/2</sub> | 6 ~ 10 |                |

\* Per NIST standards

**Round LED**  
**Yellow**

Part No.: **M13E5040**

Customer:

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 28.06.2010 |
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### Directive Characteristics

**Round LED  
Yellow**

Part No.: **M13E5040**

Customer:

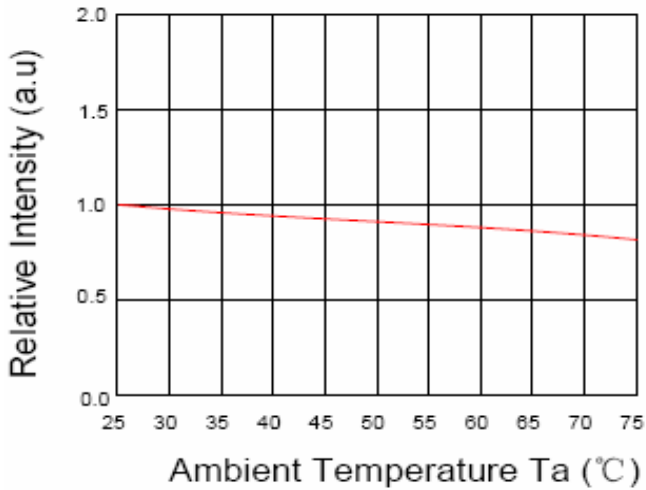
|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 28.06.2010 |
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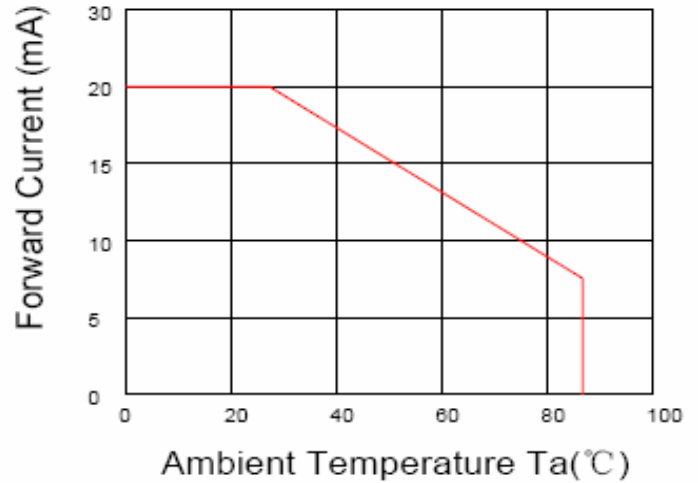


**Curve**

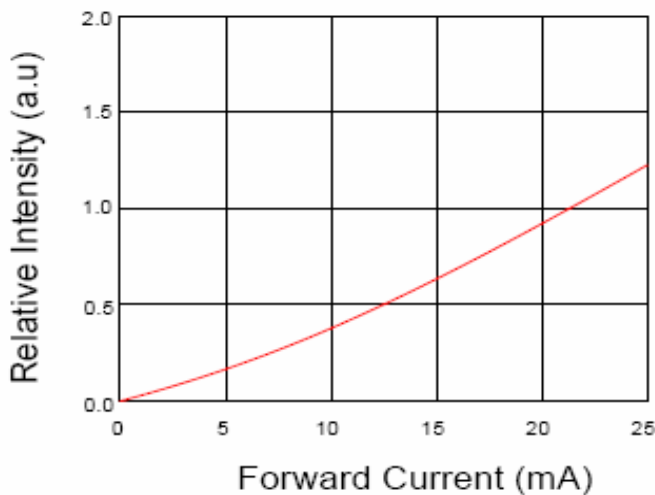
Relative Intensity VS. Ambient Temp



Forward Current VS. Ambient Temp



Forward Current VS. Relative Intensity



**Round LED**  
**Yellow**

Part No.: **M13E5040**

Customer:

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 28.06.2010 |
| APPD: | Ping |      |       | FINISH | Hui  | Sheet | 4 from 6   |



**Solder Condition**

**Lead Free Solder**



|                             |                 |
|-----------------------------|-----------------|
| <b>Round LED<br/>Yellow</b> |                 |
| Part No.:                   | <b>M13E5040</b> |
| Customer:                   |                 |

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 28.06.2010 |
| APPD: | Ping |      |       | FINISH | Hui  | Sheet | 5 from 6   |



**Color table curve**



|                             |                 |
|-----------------------------|-----------------|
| <b>Round LED<br/>Yellow</b> |                 |
| Part No.:                   | <b>M13E5040</b> |
| Customer:                   |                 |

|       |      |      |       |        |      |       |            |
|-------|------|------|-------|--------|------|-------|------------|
| DRW:  | Dong | CHKD | Chang | MATL:  | Chui | DATE  | 28.06.2010 |
| APPD: | Ping |      |       | FINISH | Hui  | Sheet | 6 from 6   |

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