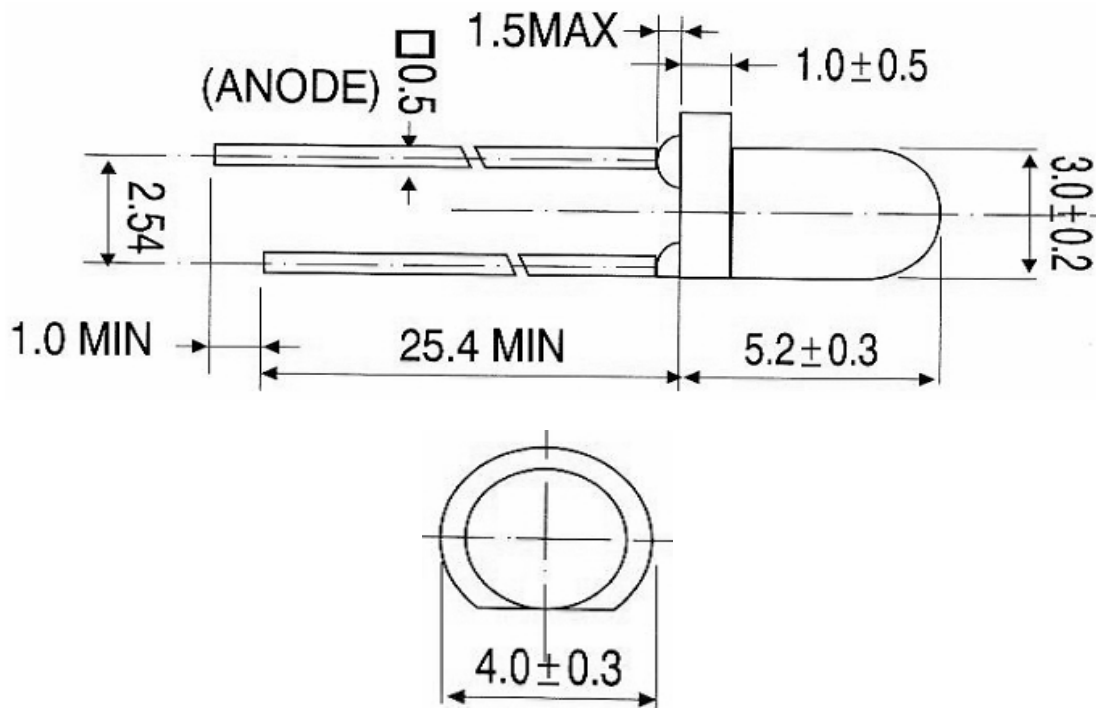




Applications

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

Technical Drawing



Notes :

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

| | |
|-----------------------------|-----------------|
| Round LED Orange | |
| Part No.: | M13E2009 |
| Customer: | |

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 04.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 1 from 6 |



Absolute Maximum Ratings

Ta=25°C

| Item | Symbol | AlGaInP | Unit |
|------------------------|-------------------|------------|------|
| Power Dissipation | P _D | --- | mW |
| DC Forward Current | I _F | 20 | mA |
| Pulsed Forward Current | I _{FP} * | --- | mA |
| Reverse Voltage | V _R | --- | V |
| Operating Temperature | T _{OP} | --- | °C |
| Storage Temperature | T _{ST} | -55 to 100 | °C |

* 0.1 msec pulse, 10% duty cycle

Electrical / Optical Characteristics

I_F=20mA Ta=25°C

| | | | |
|-----------------------------|-------------------|------|----------------|
| Emitting Color | Orange | | |
| Material | AlGaInP | | |
| Forward Voltage | typ. | 2.0 | V _F |
| | max. | 2.4 | V _F |
| Wavelength typ. | λ _D | 615 | nm |
| | λ _P | --- | nm |
| | Δλ | --- | nm |
| Color Temperature | min. | --- | K |
| | max. | --- | K |
| Luminous Intensity * | min. | 1200 | mcd |
| | typ. | 3000 | mcd |
| Reverse Current | max. | --- | μA |
| Viewing Angle | 2θ _{1/2} | 25 | |

* Per NIST standards

Round LED
Orange

Part No.: **M13E2009**

Customer:

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 04.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 2 from 6 |



Directive Characteristics

**Round LED
Orange**

Part No.: **M13E2009**

Customer:

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 04.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 3 from 6 |



Curve

| | |
|-----------------------------|-----------------|
| Round LED Orange | |
| Part No.: | M13E2009 |
| Customer: | |

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 04.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 4 from 6 |



Solder Condition

Lead Free Solder

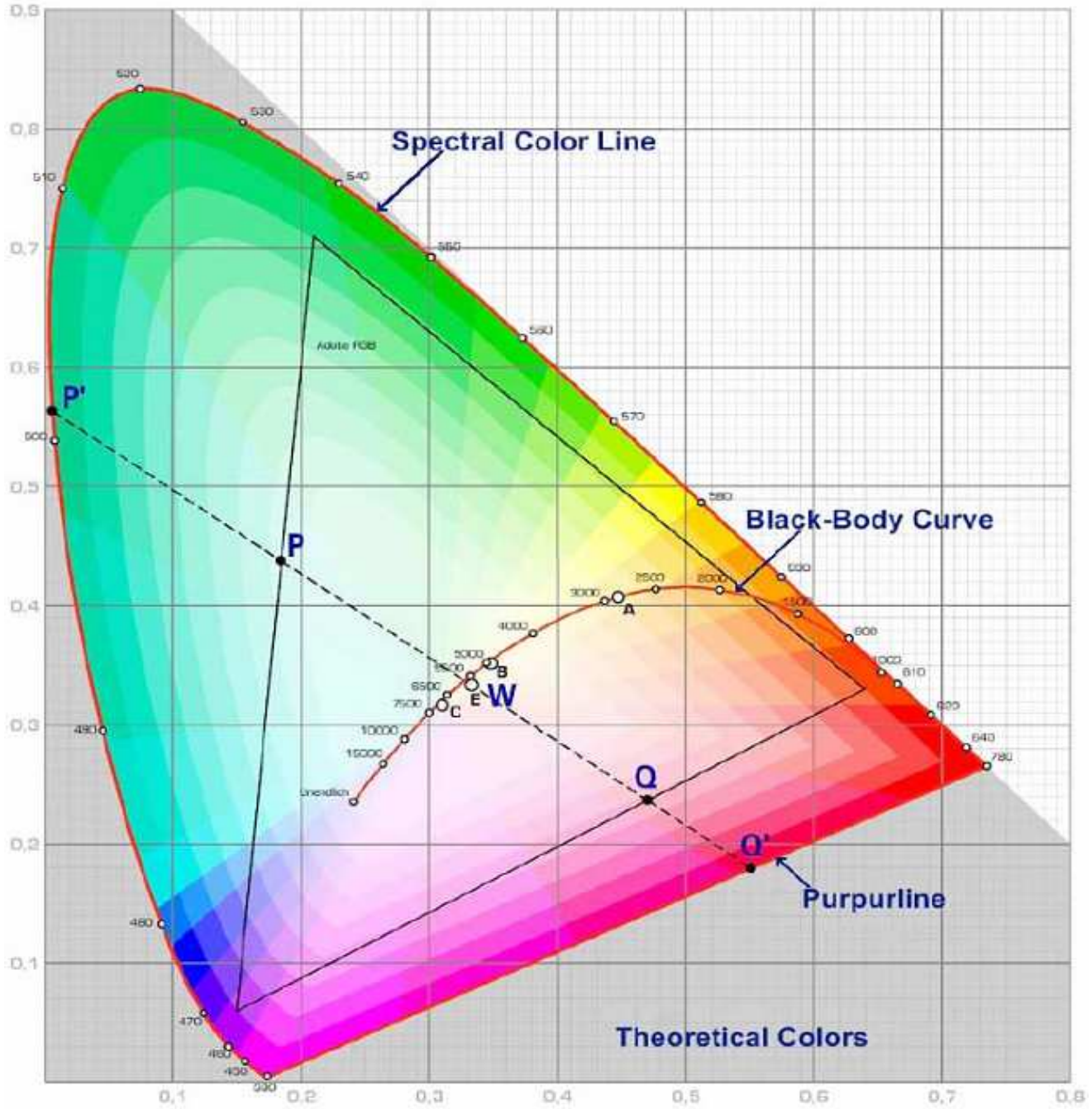


| | |
|-----------------------------|-----------------|
| Round LED Orange | |
| Part No.: | M13E2009 |
| Customer: | |

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 04.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 5 from 6 |



Color table curve



| | |
|-----------------------------|----------------|
| Round LED Orange | |
| Part No.: | M13E209 |
| Customer: | |

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 04.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 6 from 6 |

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