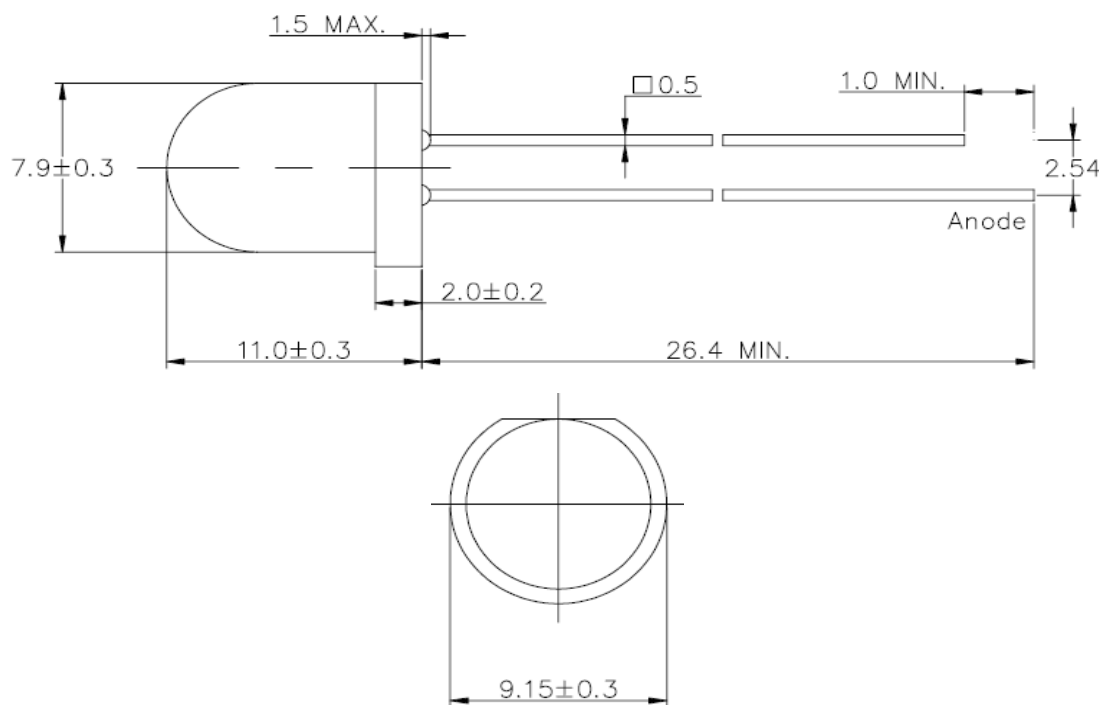




Applications

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

Technical Drawing



Notes :

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

| | |
|----------------------------|----------------|
| Round LED Green | |
| Part No.: | M138005 |
| Customer: | |

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 05.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 1 from 6 |



Absolute Maximum Ratings

Ta=25°C

| Item | Symbol | InGaN | Unit |
|------------------------|-------------------|-----------|------|
| Power Dissipation | P _D | 120 | mW |
| DC Forward Current | I _F | 30 | mA |
| Pulsed Forward Current | I _{FP} * | 100 | mA |
| Reverse Voltage | V _R | 5 | V |
| Operating Temperature | T _{OP} | -40 to 85 | °C |
| Storage Temperature | T _{ST} | -40 to 85 | °C |

* 0.1 msec pulse, 10% duty cycle

Electrical / Optical Characteristics

I_F=20mA Ta=25°C

| Ermitting Color | Green | | |
|----------------------|-------------------|-------|----------------|
| Material | InGaN | | |
| Forward Voltage | typ. | 3.2 | V _F |
| | max. | 3.5 | V _F |
| Wavelength typ. | λ _D | 525 | nm |
| | λ _P | 530 | nm |
| | Δλ | 30 | nm |
| Color Temperature | min. | --- | K |
| | max. | --- | K |
| Luminous Intensity * | min. | 15000 | mcd |
| | typ. | 20000 | mcd |
| Reverse Current | max. | 50 | μA |
| Viewing Angle | 2Θ _{1/2} | 30 | |

* Per NIST standards

**Round LED
Green**

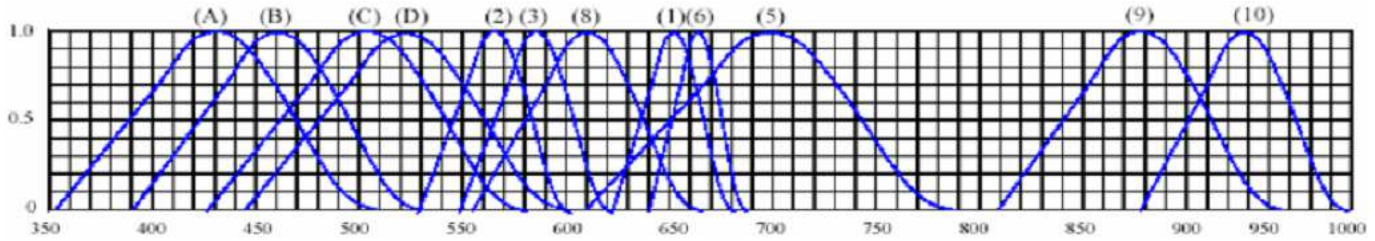
Part No.: **M138005**

Customer:

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|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 05.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 2 from 6 |



Curve



Wavelength (nm)

Relative Intensity vs Wavelength

| | | | |
|-------|-----------------------------------|--------|------------------------|
| (1) | GaAsP / GaAs 655nm Red | (9) | GaAlAs 880nm |
| (2) | GaP 568nm Yellow Green | (10) | GaAs & GaAlAs 940nm |
| (3) | GaAsP / GaP 585nm Yellow | (A) | GaN 430nm Blue |
| (4) | GaAsP / GaP 635nm Orange & Red | (B) | InGaN 470nm Blue |
| (5) | GaP 700nm Red | (C) | InGaN 502nm Green |
| (6) | GaAlAs / GaAs 660nm Red | (D) | InGaN 523nm Green |
| (8) | GaAsP / GaP 610nm Red | | |

**Round LED
Green**

Part No.: **M138005**

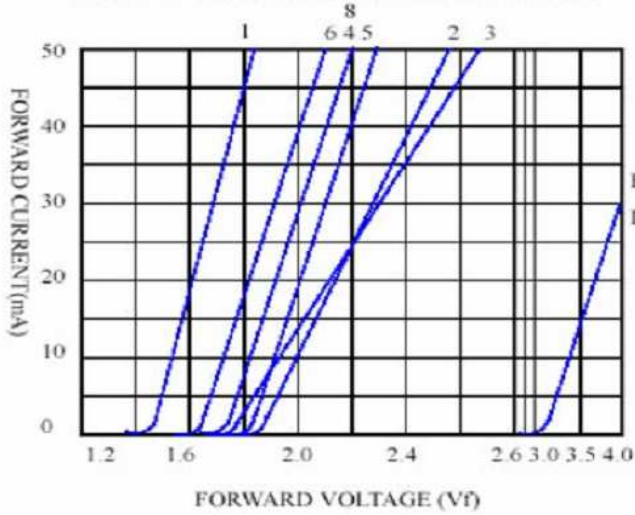
Customer:

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 05.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 3 from 6 |

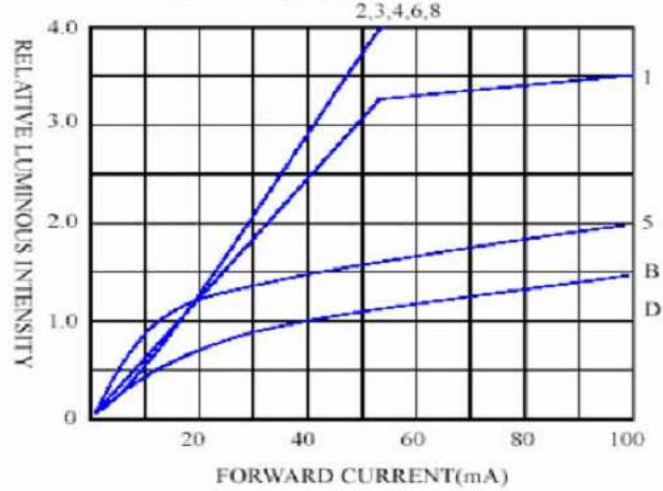


Curve

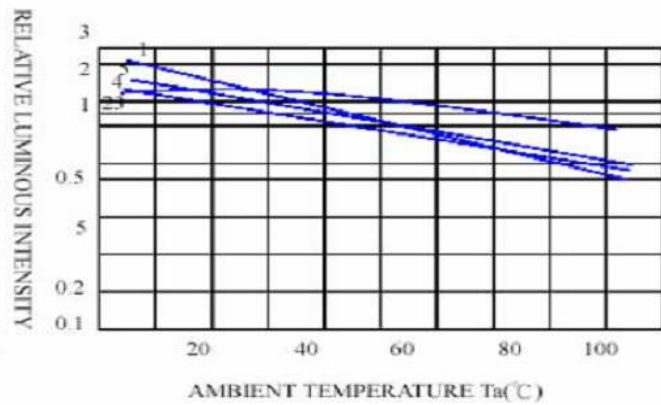
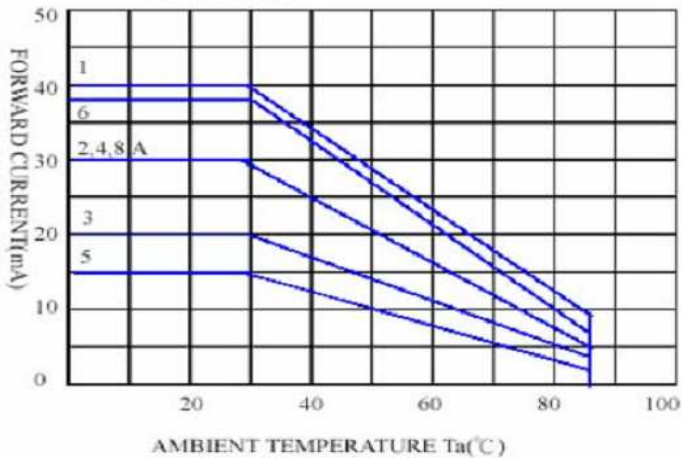
FORWARD CURRENT VS. FORWARD VOLTAGE



RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE



**Round LED
 Green**

Part No.: **M138005**

Customer:

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 05.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 4 from 6 |



Solder Condition

Lead Free Solder

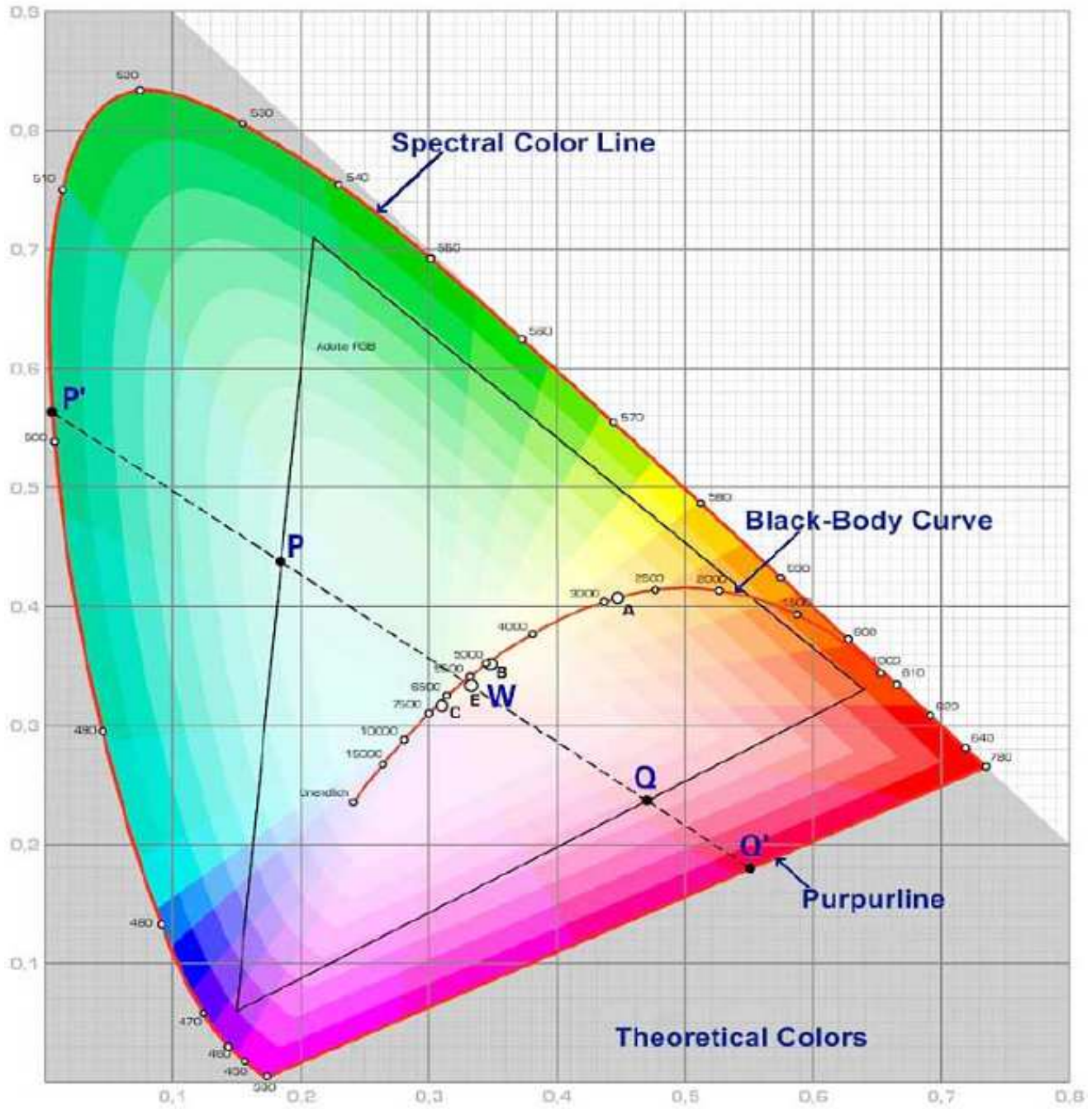


| | |
|----------------------------|----------------|
| Round LED Green | |
| Part No.: | M138005 |
| Customer: | |

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 05.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 5 from 6 |



Color table curve



| | |
|----------------------------|----------------|
| Round LED Green | |
| Part No.: | M138005 |
| Customer: | |

| | | | | | | | |
|-------|------|------|-------|--------|------|-------|------------|
| DRW: | Dong | CHKD | Chang | MATL: | Chui | DATE | 05.12.2009 |
| APPD: | Ping | | | FINISH | Hui | Sheet | 6 from 6 |