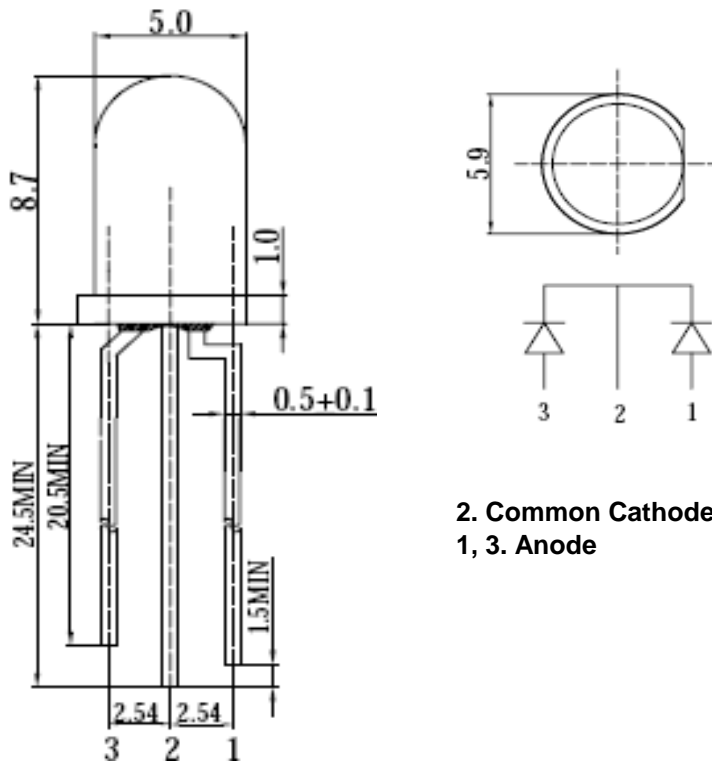




Applications

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

Technical Drawing



2. Common Cathode
 1, 3. Anode

Notes :

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

| | |
|------------------|-----------------|
| Round LED | |
| Red | Blue |
| Part No.: | M13J1002 |
| Customer: | |

| | | | | | | | |
|-------|-----|------|------|--------|-------|-------|------------|
| DRW: | Ron | CHKD | Lang | MATL: | Chang | DATE | 01.07.2010 |
| APPD: | Xie | | | FINISH | Wang | Sheet | 1 from 6 |



Absolute Maximum Ratings

| Item | Symbol | --- | --- | Unit |
|------------------------|-------------------|------------|-----|------|
| Power Dissipation | P _D | 78 | 108 | mW |
| DC Forward Current | I _F | 30 | 30 | mA |
| Pulsed Forward Current | I _{FP} * | 100 | 100 | mA |
| Reverse Voltage | V _R | 5 | | V |
| Operating Temperature | T _{OP} | -30 to 85 | | °C |
| Storage Temperature | T _{ST} | -40 to 100 | | °C |

* 0.1 msec pulse, 10% duty cycle

Electrcal / Optical Characteristics

| Ermitting Color | Red | | Blue | |
|----------------------|----------------|------|------|----------------|
| | --- | | --- | |
| Material | --- | | --- | |
| Forward Voltage | typ. | 2.1 | 3.1 | V _F |
| | max. | 2.6 | 3.6 | V _F |
| Wavelength typ. | λ _D | 620 | 465 | nm |
| | λ _P | 625 | 470 | nm |
| | Δλ | --- | --- | nm |
| Color Temperature | min. | --- | --- | K |
| | max. | --- | --- | K |
| Luminous Intensity * | min. | 3000 | 1560 | mcd |
| | typ. | 4200 | 2000 | mcd |
| Reverse Current | max. | 10 | | μA |
| Viewing Angle | 2Θ1/2 | 30 | | |

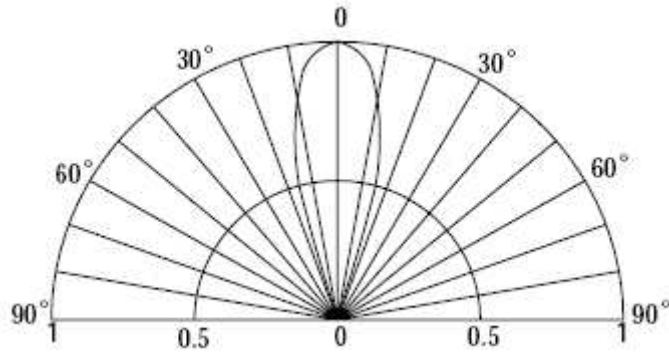
* Per NIST standards

| | |
|------------------|-----------------|
| Round LED | |
| Red | Blue |
| Part No.: | M13J1002 |
| Customer: | |

| | | | | | | | |
|-------|-----|------|------|--------|-------|-------|------------|
| DRW: | Ron | CHKD | Lang | MATL: | Chang | DATE | 01.07.2010 |
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Directive Characteristics

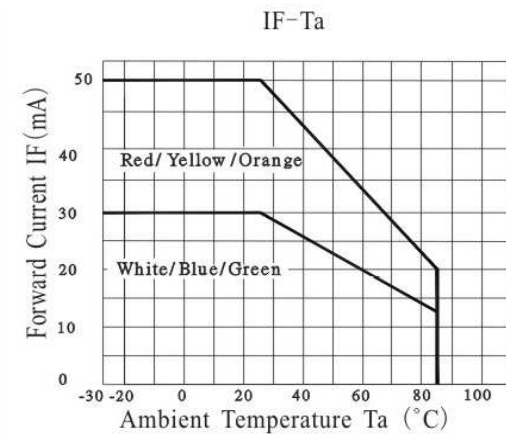
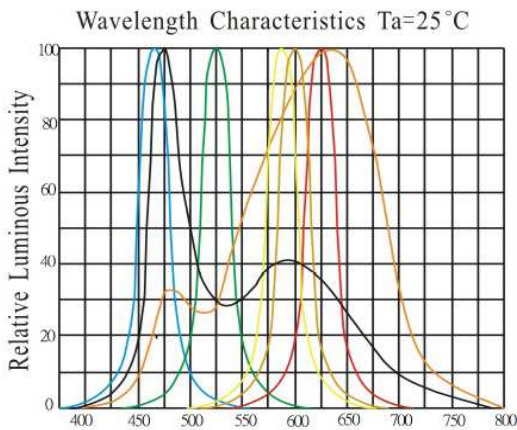
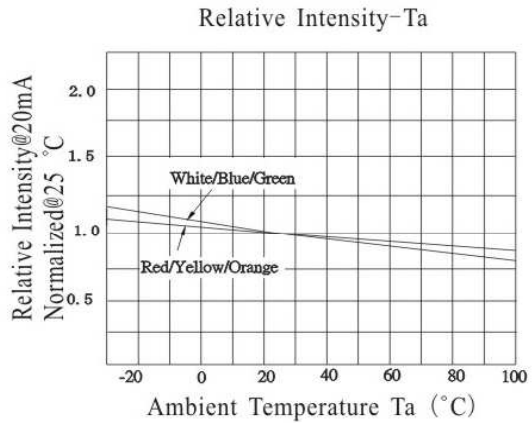
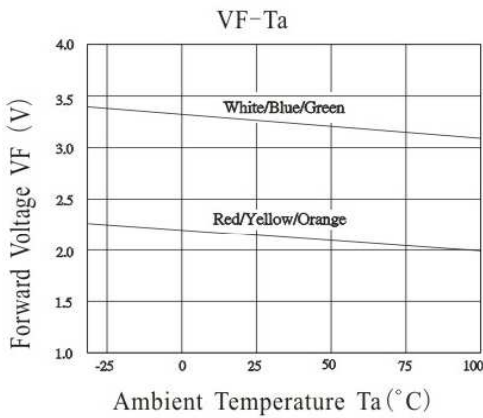
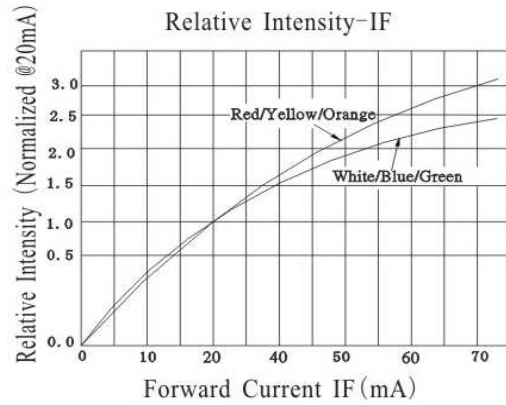
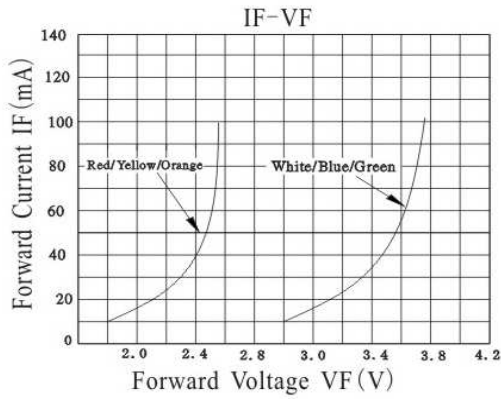


| | |
|------------------|-----------------|
| Round LED | |
| <i>Red</i> | <i>Blue</i> |
| Part No.: | M13J1002 |
| Customer: | |

| | | | | | | | |
|-------|-----|------|------|--------|-------|-------|------------|
| DRW: | Ron | CHKD | Lang | MATL: | Chang | DATE | 01.07.2010 |
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Typical Characteristics



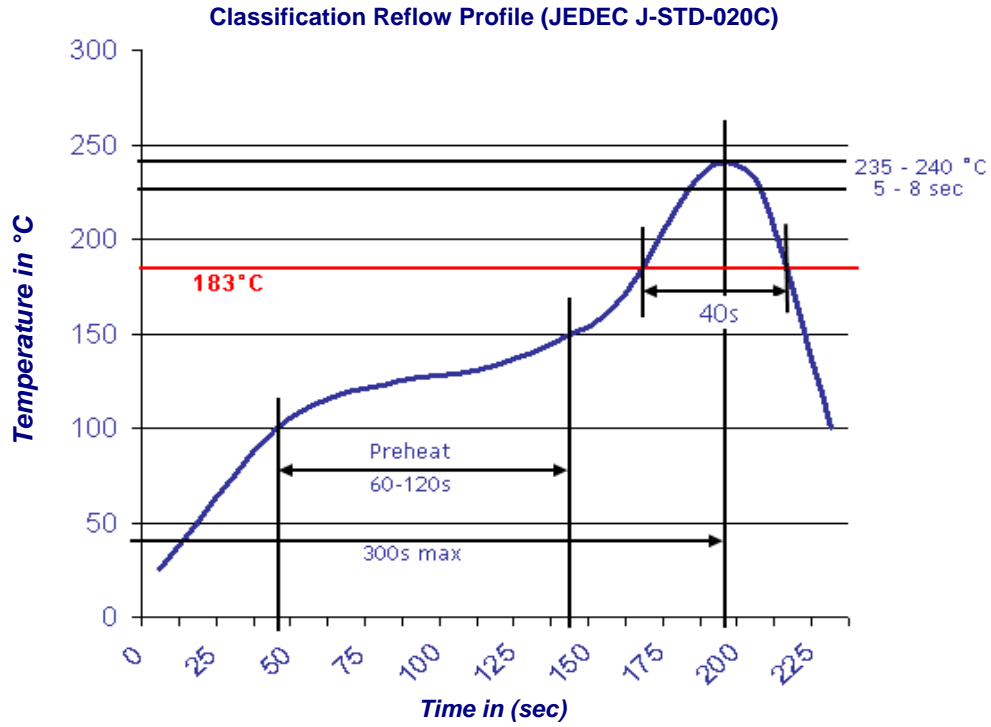
| | |
|------------------|-----------------|
| Round LED | |
| Red | Blue |
| Part No.: | M13J1002 |
| Customer: | |

| | | | | | | | |
|-------|-----|------|------|--------|-------|-------|------------|
| DRW: | Ron | CHKD | Lang | MATL: | Chang | DATE | 01.07.2010 |
| APPD: | Xie | | | FINISH | Wang | Sheet | 4 from 6 |



Solder Condition

Lead Free Solder

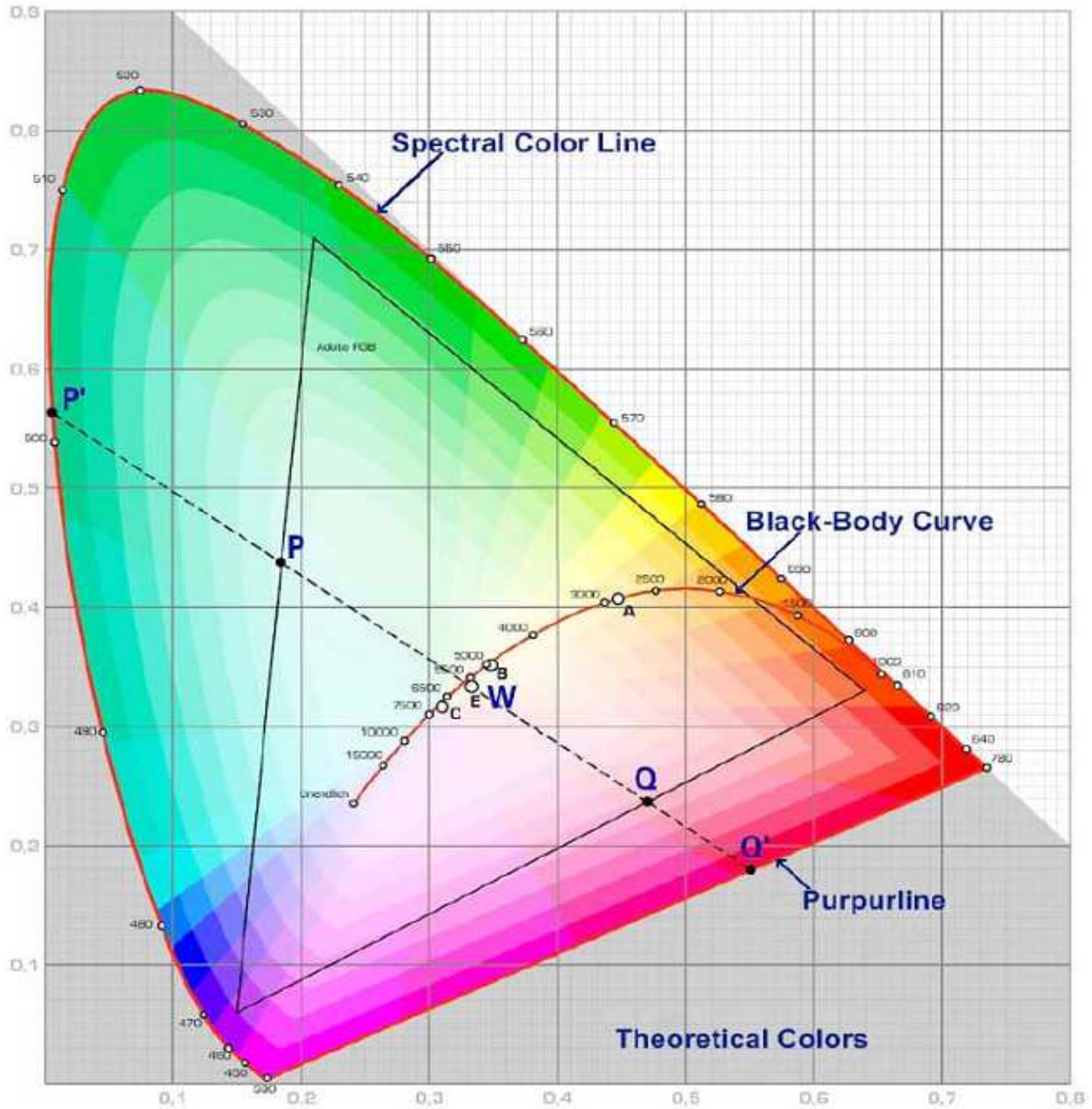


| | |
|------------------|-----------------|
| Round LED | |
| Red | Blue |
| Part No.: | M13J1002 |
| Customer: | |

| | | | | | | | |
|-------|-----|------|------|--------|-------|-------|------------|
| DRW: | Ron | CHKD | Lang | MATL: | Chang | DATE | 01.07.2010 |
| APPD: | Xie | | | FINISH | Wang | Sheet | 5 from 6 |



Color table curve



| | |
|------------------|-----------------|
| Round LED | |
| <i>Red</i> | <i>Blue</i> |
| Part No.: | M13J1002 |
| Customer: | |

| | | | | | | | |
|-------|-----|------|------|--------|-------|-------|------------|
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