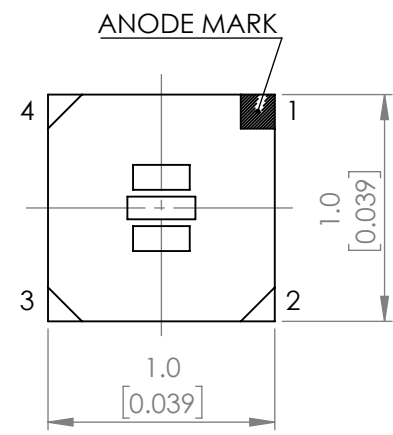
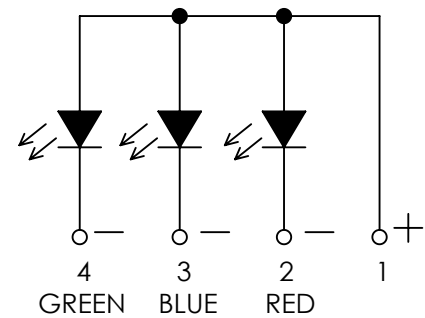


| | | | | |
|-------------|-------------------------------------|--------------------|-----|----------|
| PART NUMBER | | SML-LX0404SIUPGUSB | REV | C |
| REV | E.C.N. NUMBER AND REVISION COMMENTS | | | DATE |
| A | E.C.N. #11941 | | | 05.11.15 |
| B | E.C.N. #11956 | | | 06.03.15 |
| C | ECN-Lumex201700046 | | | 08.10.17 |

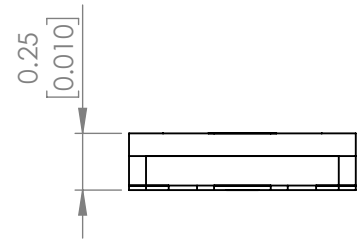


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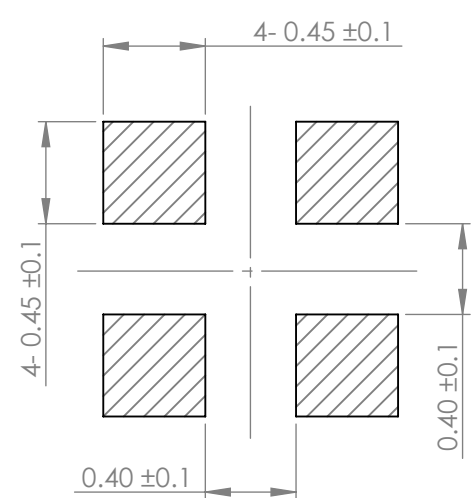
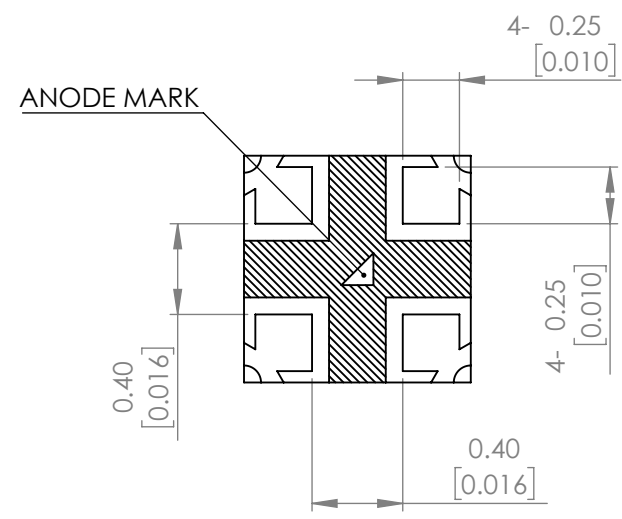


ELECTRO-OPTICAL CHARACTERISTIC TA=25°C

| PARAMETER | | MIN | TYP | MAX | UNITS | TEST COND |
|---------------------|--------------------|-----|------|------|-------------|-----------|
| PEAK WAVELENGTH | R | - | 632 | - | nm | If=2mA |
| | G | - | 518 | - | | |
| | B | - | 468 | - | | |
| DOMINANT WAVELENGTH | R | - | 627 | - | nm | If=2mA |
| | G | - | 531 | - | | |
| | B | - | 470 | - | | |
| FORWARD VOLTAGE | R | - | 1.95 | 2.15 | Vf | If=2mA |
| | G | - | 2.75 | 2.95 | | |
| | B | - | 2.70 | 2.85 | | |
| REVERSE VOLTAGE | R | - | - | 5 | Vr | Ir=10uA |
| | G | - | - | 5 | | Ir=50uA |
| | B | - | - | 5 | | Ir=50uA |
| LUMINOUS INTENSITY | R | - | 35 | - | mcd | If=2mA |
| | G | - | 50 | - | | |
| | B | - | 20 | - | | |
| VIEWING ANGLE | | - | 120 | - | 2x theta1/2 | - |
| EMITTED COLOR | RED / GREEN / BLUE | | | | | |
| EPOXY LENS FINISH | WATER CLEAR | | | | | |



RECOMMENDED SOLDER PAD LAYOUT



ABSOLUTE MAXIMUM RATINGS TA=25°C

| PARAMETER | MAX | UNITS |
|------------------------------|---------------|-------|
| PEAK FORWARD CURRENT(R/G/B)* | 60 / 100 / 20 | mA |
| FORWARD CURRENT(R/G/B) | 25 / 25 / 10 | mA |
| POWER DISIPATION(R/G/B) | 60 / 95 / 30 | mW |
| STORAGE TEMPERATURE | -40 TO +90 | °C |
| OPERATING TEMPERATURE | -40 TO +85 | °C |

*t<10us

MOISTURE SENSITIVE DEVICE
PER JEDEC LEVEL 2 STANDARDS

NOTE:
1. THE PRODUCT ITSELF WILL REMAIN WITHIN RoHS COMPLIANT VERSION.

*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= ^{+DECIMAL PRECISION}/_{-0.00} MAX= ^{+0.00}/_{-DECIMAL PRECISION}

RED BIN RANGE OF LUMINOUS INSTENSITY

| Bin Code | Min. | Max. | Unit | Condition |
|----------|------|------|------|-----------|
| A | 25 | 34 | mcd | IF=2mA |
| B | 34 | 45 | | |

GREEN BIN RANGE OF LUMINOUS INSTENSITY

| Bin Code | Min. | Max. | Unit | Condition |
|----------|------|------|------|-----------|
| A | 35 | 48 | mcd | IF=2mA |
| B | 48 | 65 | | |

RED BIN RANGE OF FORWARD VOLTAGE

| Bin Code | Min. | Max. | Unit | Condition |
|----------|------|------|------|-----------|
| 1 | 1.75 | 1.95 | V | IF=2mA |
| 2 | 1.95 | 2.15 | | |

GREEN BIN RANGE OF DOMINANT WAVELENGTH

| Bin Code | Min. | Max. | Unit | Condition |
|----------|------|------|------|-----------|
| A | 524 | 531 | nm | IF=2mA |
| B | 531 | 538 | | |

BLUE BIN RANGE OF FORWARD VOLTAGE

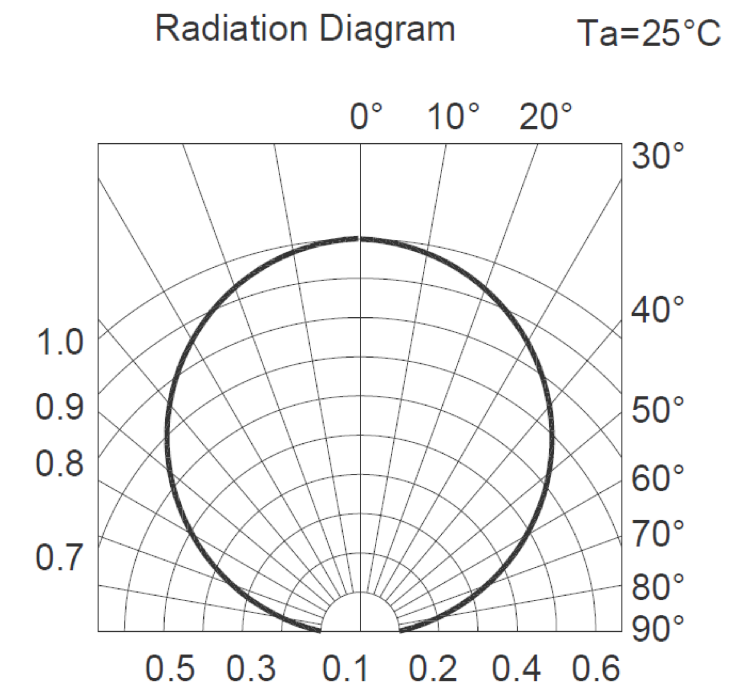
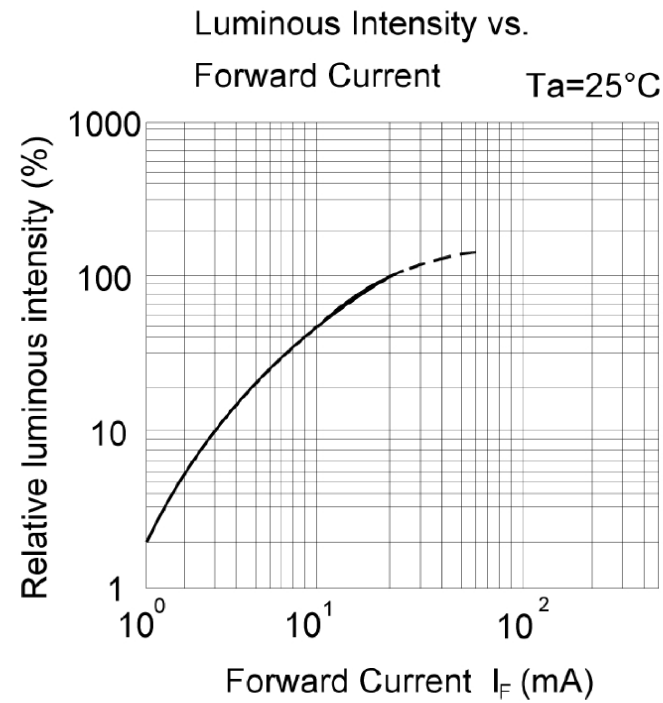
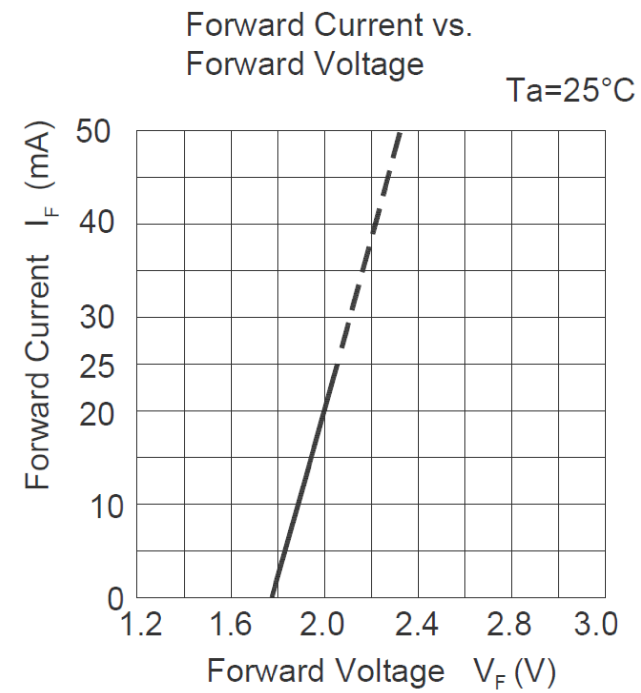
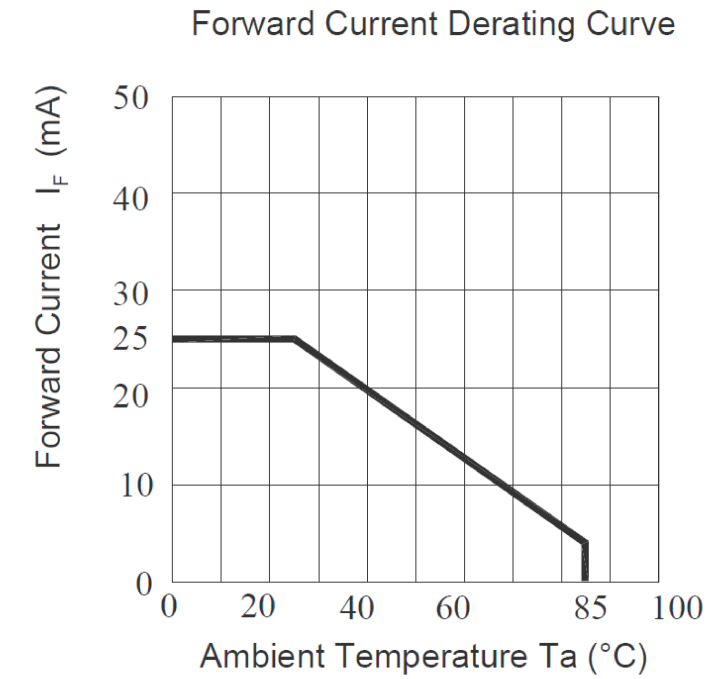
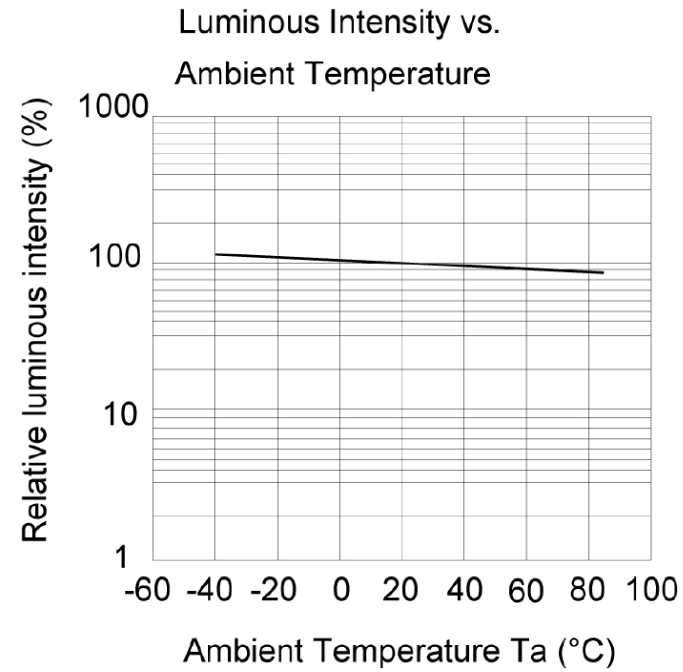
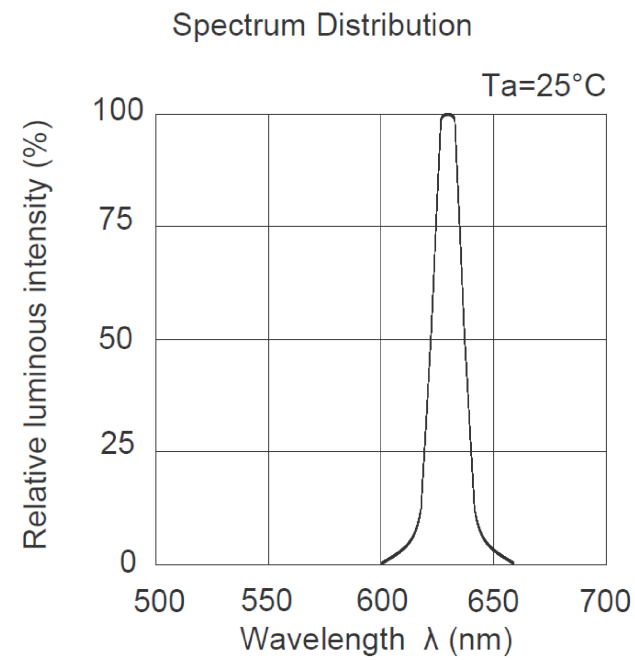
| Bin Code | Min. | Max. | Unit | Condition |
|----------|------|------|------|-----------|
| 1 | 2.60 | 2.70 | V | IF=2mA |
| 2 | 2.70 | 2.80 | | |
| 3 | 2.80 | 2.85 | | |

GREEN BIN RANGE OF FORWARD VOLTAGE

| Bin Code | Min. | Max. | Unit | Condition |
|----------|------|------|------|-----------|
| A | 2.60 | 2.65 | V | IF=2mA |
| B | 2.65 | 2.70 | | |
| C | 2.70 | 2.75 | | |
| 1 | 2.75 | 2.80 | | |
| 2 | 2.80 | 2.85 | | |
| 3 | 2.85 | 2.90 | | |
| 4 | 2.90 | 2.95 | | |

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RED TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES



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CAROL STREAM, IL 60188
PHONE : 800-278-5666
FAX : 630-315-2150
WEB : WWW.LUMEX.COM

1(L)*1(W)*0.25(H)mm, SURFACE MOUNT TOP VIEW LED, AlGaInP RED / InGaN GREEN / InGaN BLUE, WATER CLEAR LENS, TAPE & REEL.

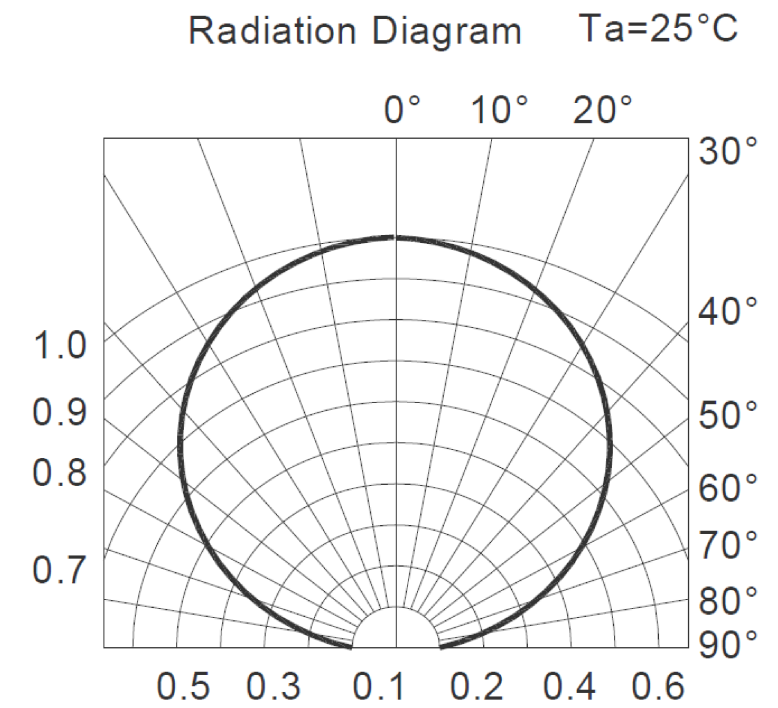
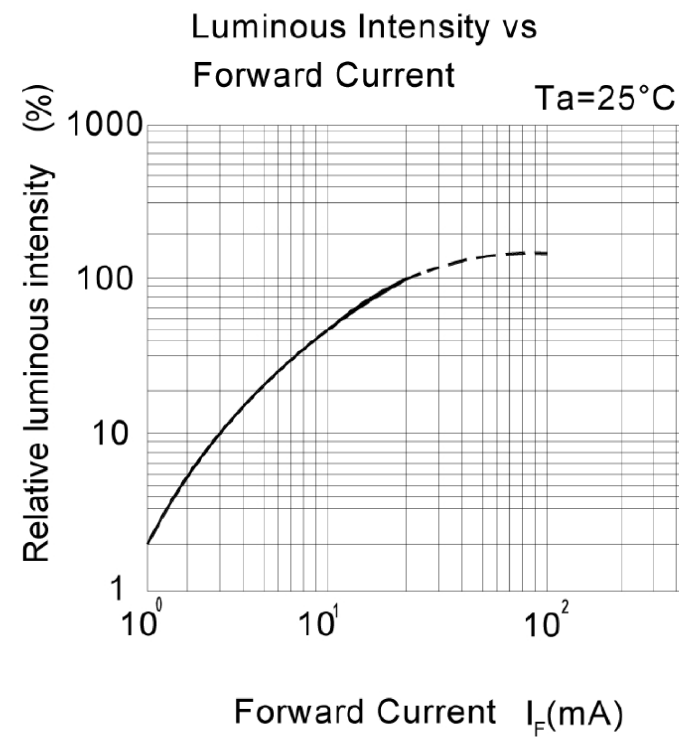
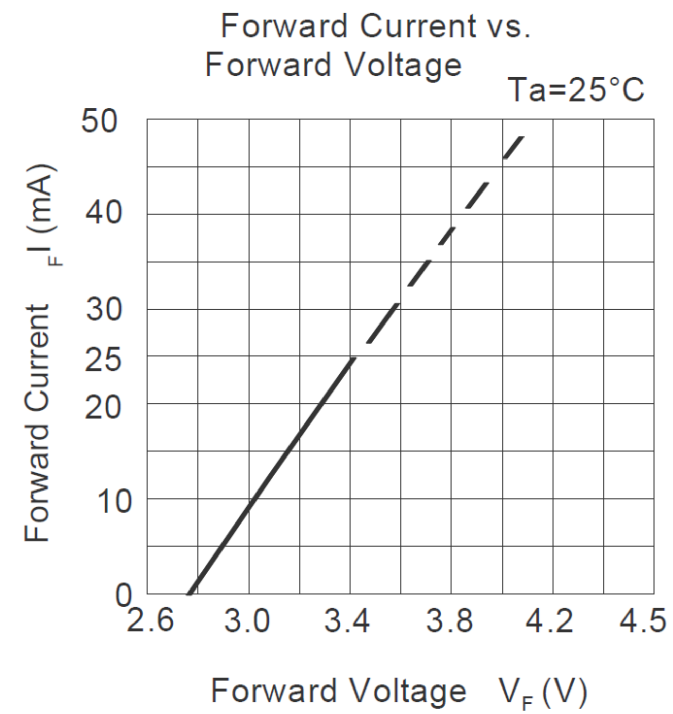
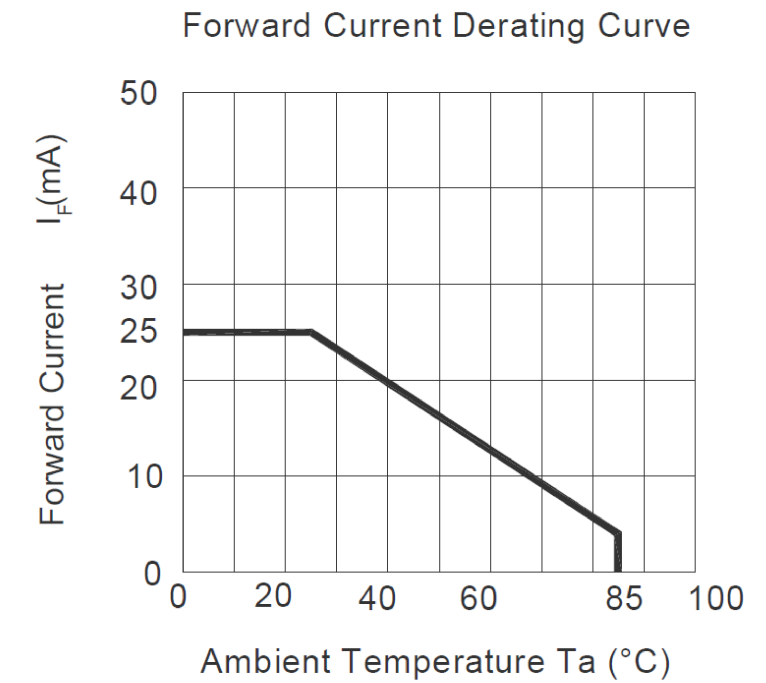
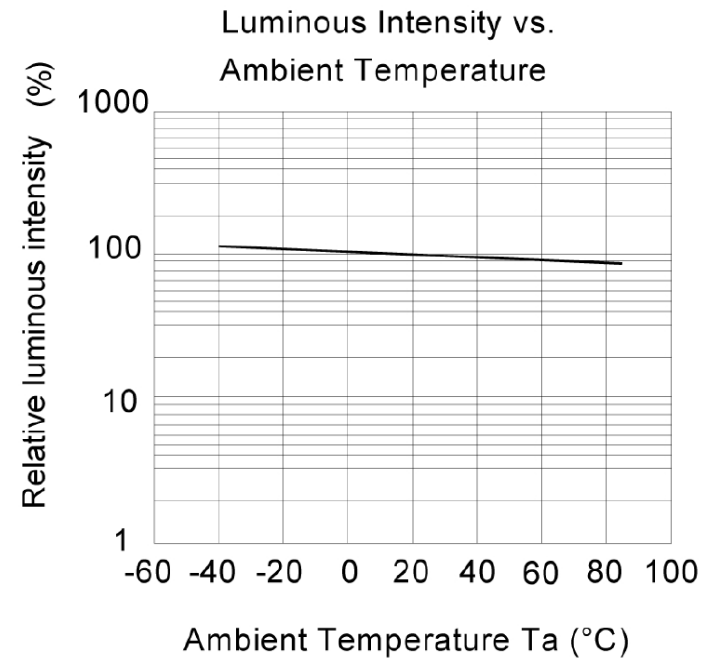
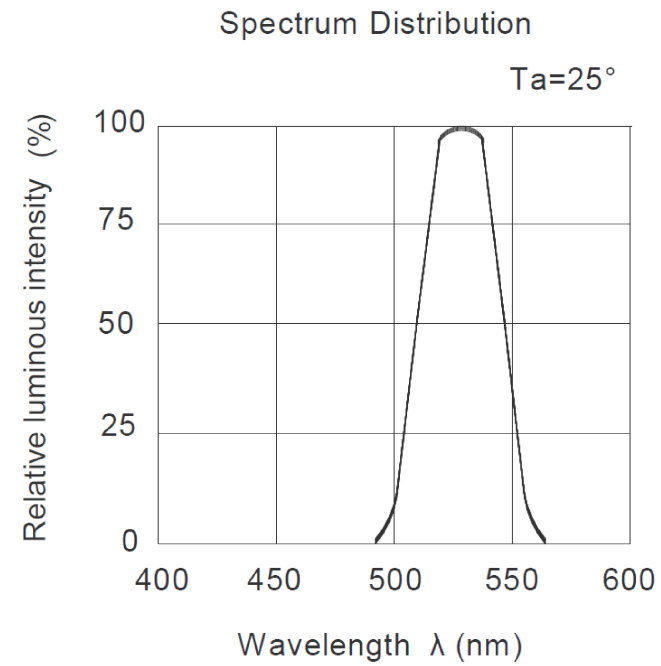
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|-------------------|-----------------|
| DATE : 2017.08.11 | DRAWN BY : C.C. |
| PAGE : 3 OF 7 | CHKD BY : G.Y. |
| SCALE : NTF | APRVD BY : E.C. |
| UNIT : mm [INCH] | |

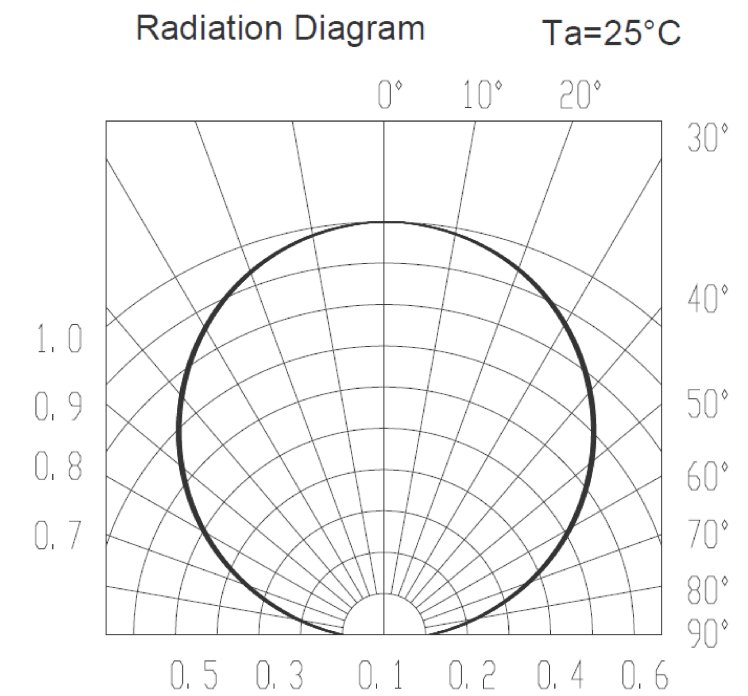
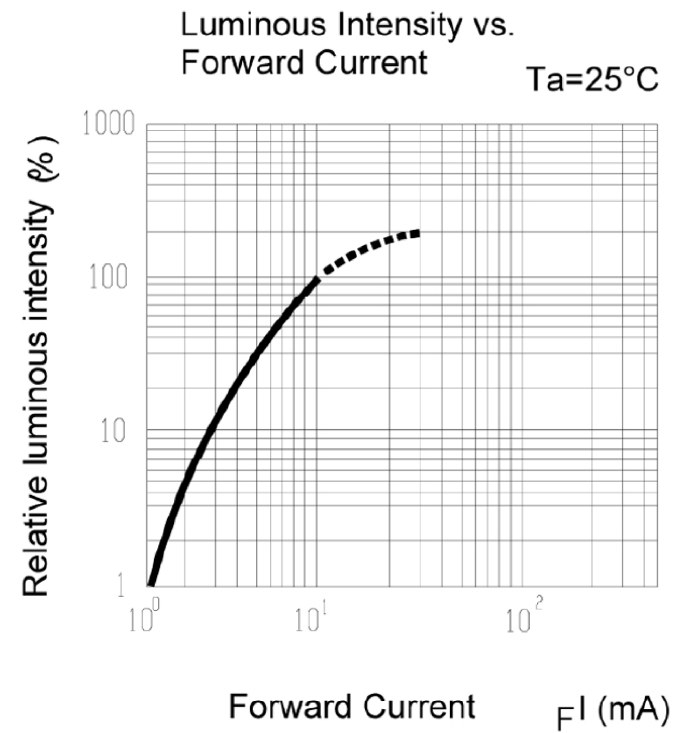
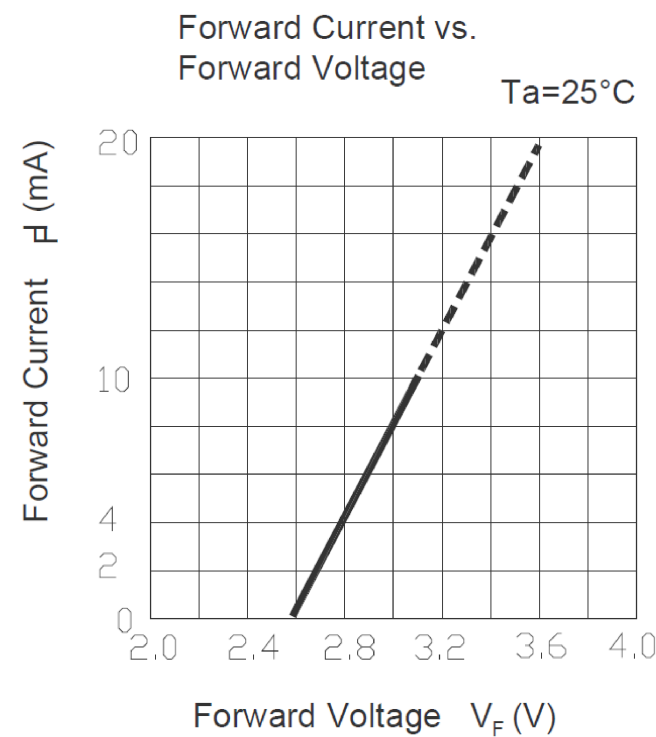
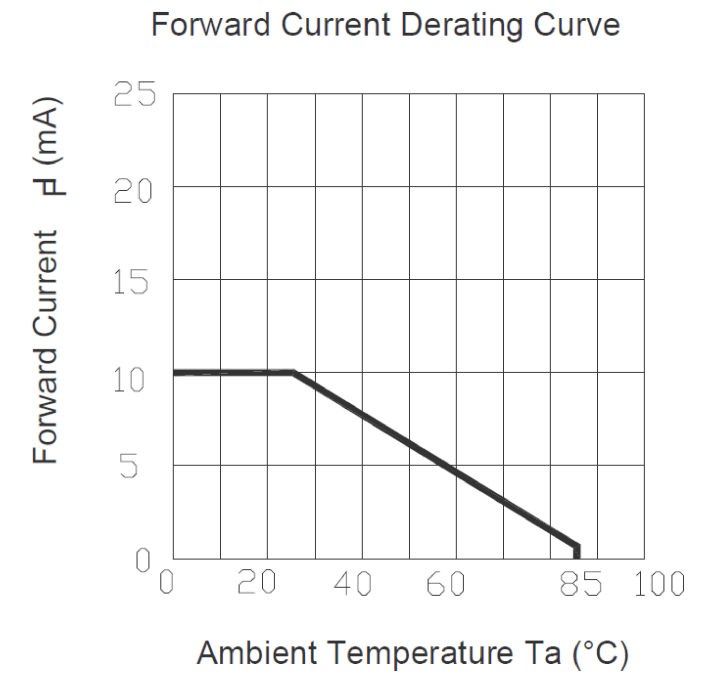
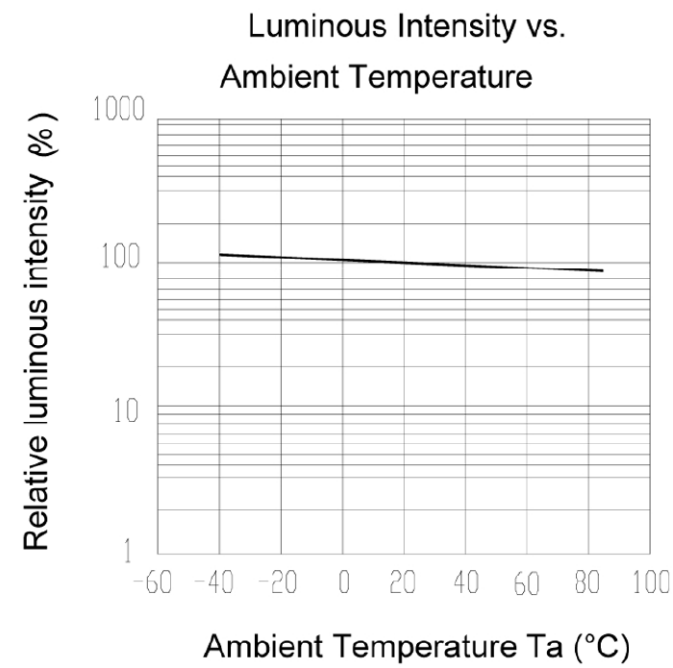
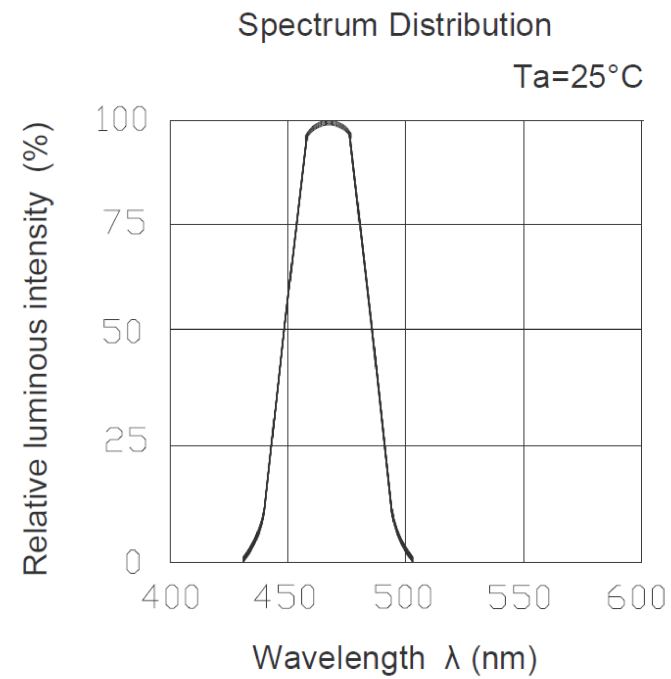


GREEN TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES




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BLUE TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

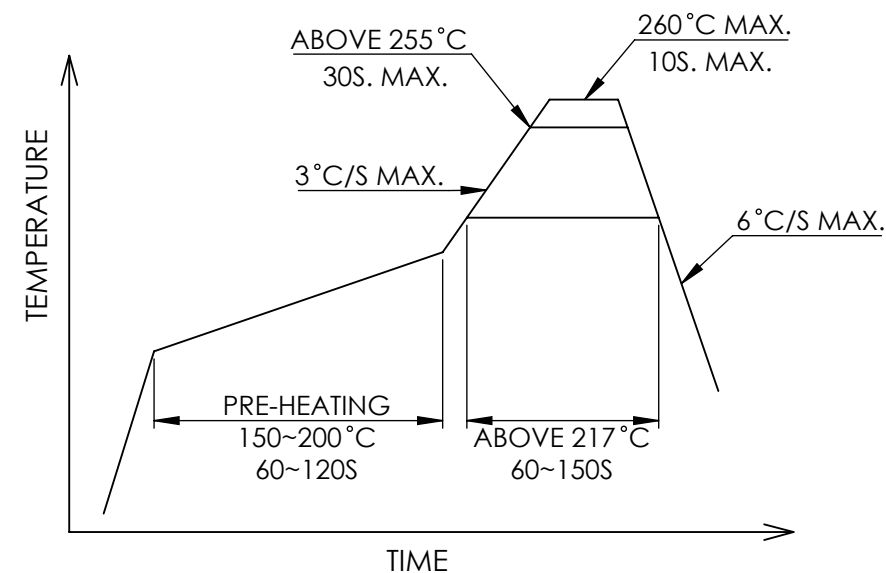


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| | | | | |
|--|--|-------------------|-----------------|--|
|  <p>425 N. GARY AVE. CAROL STREAM, IL 60188 PHONE : 800-278-5666 FAX : 630-315-2150 WEB : WWW.LUMEX.COM</p> | 1(L)*1(W)*0.25(H)mm, SURFACE MOUNT TOP VIEW LED, AlGaInP RED / InGaN GREEN / InGaN BLUE, WATER CLEAR LENS, TAPE & REEL. | DATE : 2017.08.11 | DRAWN BY : C.C. | |
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| | | UNIT : mm [INCH] | | |

PRECAUTIONS FOR USE

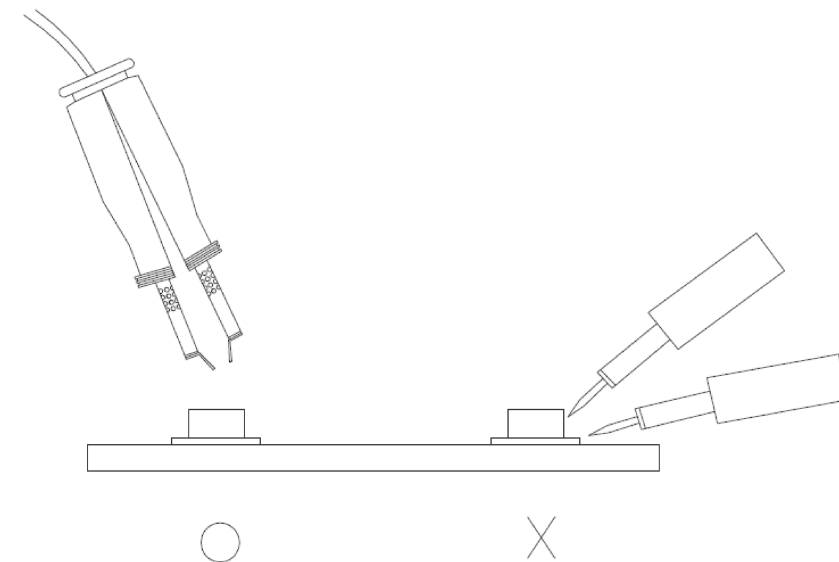
1. Over-current-proof
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen).
2. Storage
 - 2.1 Do not open moisture proof bag before the products are ready to use.
 - 2.2 Before opening the package: The LEDs should be kept at 30°C or less and 90%RH or less.
 - 2.3 After opening the package: The LED's floor life is 1 year under 30°C or less and 60% RH or less.
If unused LEDs remain, it should be stored in moisture proof packages.
 - 2.4 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.
Baking treatment : 60±5°C for 24 hours.
3. Soldering Condition
 - 3.1 Pb-free solder temperature profile




- 3.2 Reflow soldering should not be done more than two times.
- 3.3 When soldering, do not put stress on the LEDs during heating.
- 3.4 After soldering, do not warp the circuit board.
4. Soldering Iron
Each terminal is to go to the tip of soldering iron temperature less than 350°C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

5. Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.



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