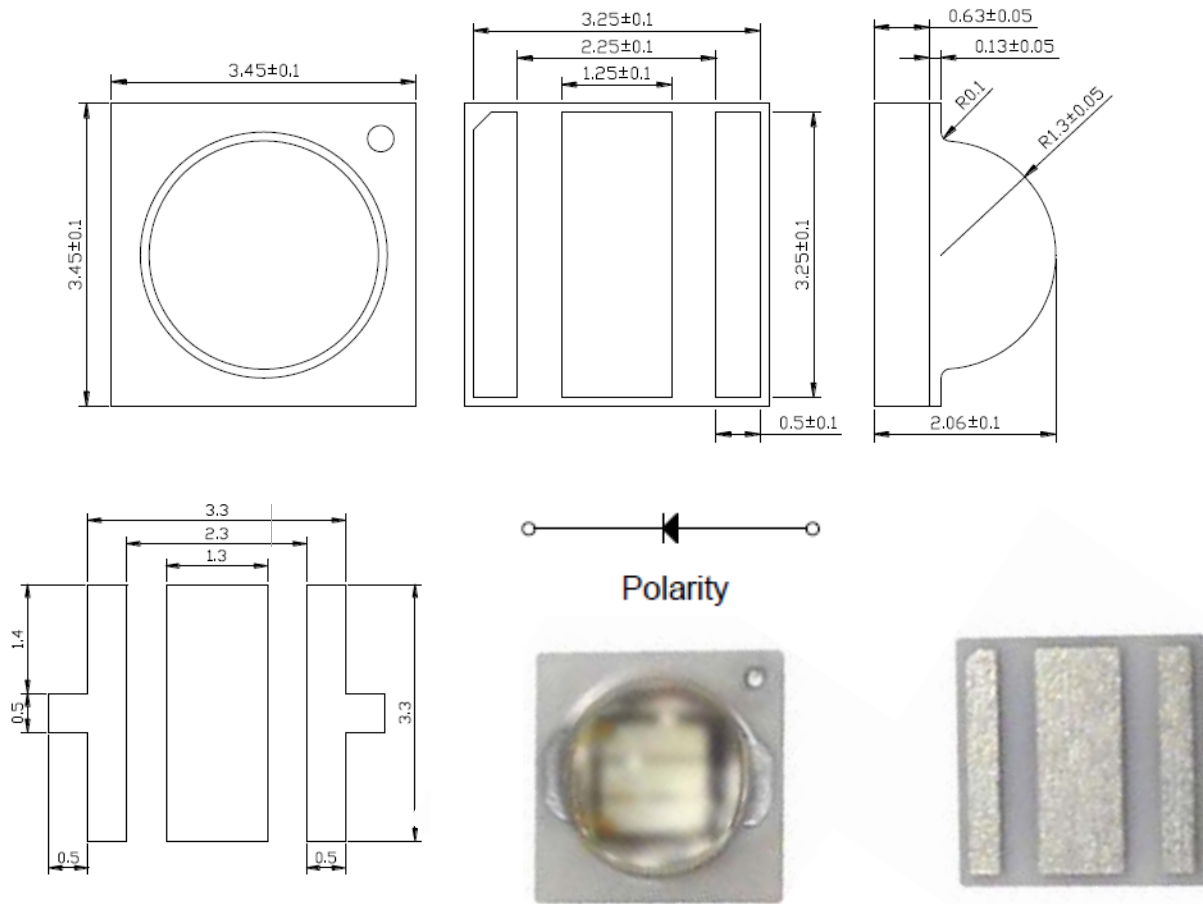


■ **Package Dimension:**



**Recommended Soldering Pad**

| Part NO.         | Chip  | Emitting Color | Lens Color  |
|------------------|-------|----------------|-------------|
| AL-01CEUV3WC-4A2 | InGaN | UV             | Water Clear |

**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  (.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm(.04") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.
6. This data-sheet only valid for six months.

**■ Absolute Maximum Ratings at Ta=25°C**

| Parameter                             | Symbol          | MAX.          | Unit    |
|---------------------------------------|-----------------|---------------|---------|
| DC Forward Current                    | I <sub>F</sub>  | 700           | mA      |
| Reverse Voltage                       | V <sub>R</sub>  | 5             | V       |
| Power Dissipation                     | P <sub>D</sub>  | 2.48          | W       |
| Pulse Forward Current                 | I <sub>FP</sub> | 1000          | mA      |
| LED junction Temperature (at 350mA)   | T <sub>j</sub>  | 125           | °C      |
| Thermal Resistance                    | R <sub>th</sub> | 10            | K/W     |
| Operating Temperature Range           | Topr            | -40°C to +100 | °C      |
| Storage Temperature Range             | Tstg            | -40°C to +100 | °C      |
| Manual Soldering Time at 260°C (Max.) | Tsol            | 5             | seconds |

**Notes:**

1. Maximum DC forward current is determined by the overall thermal resistance and ambient temperature.
2. I<sub>FP</sub> conditions: pulse width  $\leq 1\text{ms}$  and duty cycle  $\leq 10\%$ .

## ■ Electrical Optical Characteristics at Ta=25°C

| Parameter         | BIN | Symbol            | Min. | Typ. | Max. | Unit | Test Condition        |
|-------------------|-----|-------------------|------|------|------|------|-----------------------|
| Power Consumption | S10 | Radiometric Power | 620  | ---  | 660  | mW   | I <sub>F</sub> =500mA |
|                   | S11 |                   | 660  | ---  | 700  |      |                       |
|                   | S12 |                   | 700  | ---  | 740  |      |                       |
|                   | S13 |                   | 740  | ---  | 780  |      |                       |
|                   | S14 |                   | 780  | ---  | 820  |      |                       |
| Forward Voltage   |     | V <sub>F</sub>    | 3    | ---  | 4    | V    | I <sub>F</sub> =500mA |
| Peak Wavelength   |     | λ <sub>p</sub>    | 410  | ---  | 420  | nm   | I <sub>F</sub> =500mA |
| Spectra Half Widh |     | Δλ                | 12   | ---  | 25   | nm   | I <sub>F</sub> =500mA |
| Reverse Current   |     | I <sub>R</sub>    | ---  | ---  | 2    | μA   | I <sub>F</sub> =500mA |
| Emission Angle    |     | 2θ <sub>1/2</sub> | ---  | 120  | ---  | Deg  | I <sub>F</sub> =500mA |

### Notes:

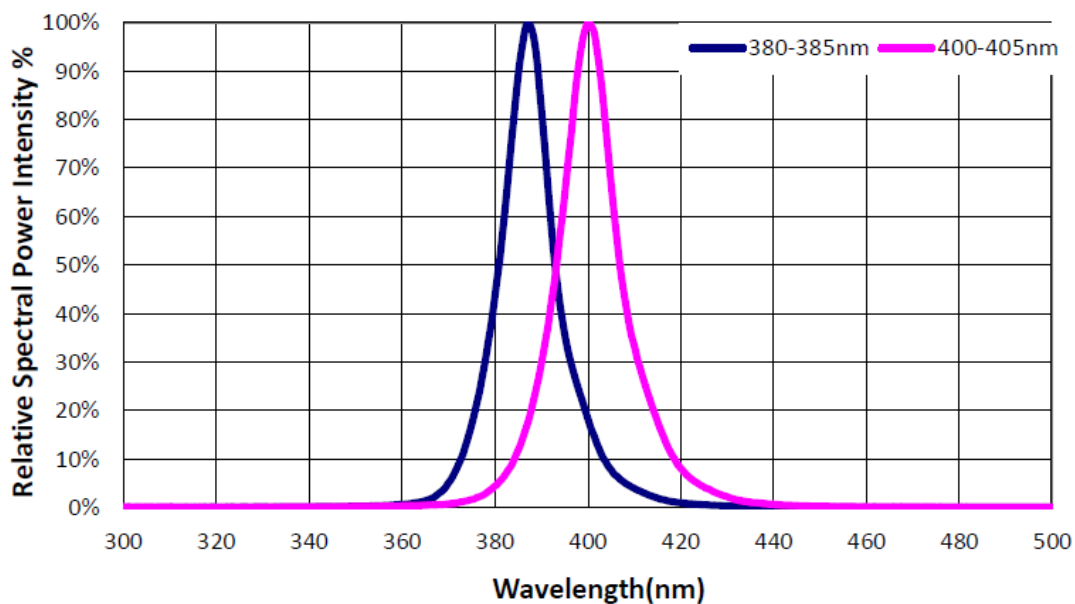
1. Ranking at Ts=25°C.
2. Forward Voltage Tolerance: ±0.05V.
3. Radiometric Power Tolerance: ±10%.
4. Peak Wavelength Tolerance: ±2nm.
5. LEDs from the above ranks will be shipped.

**■ Forward Voltage Binning**

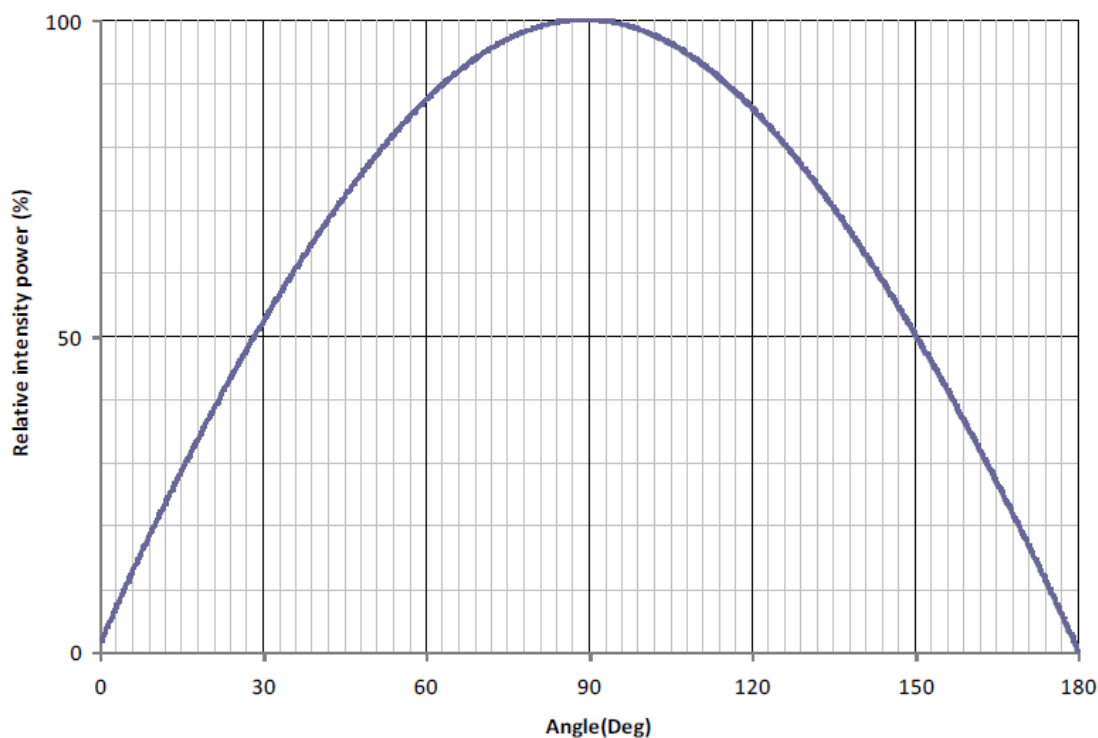
| Part number | Forward Voltage at Test Current (500mA) |                     |                     |
|-------------|---|---------------------|---------------------|
|             | Vf Group                                | Minimum Voltage (V) | Maximum Voltage (V) |
|             | V30                                     | 3.0                 | 3.2                 |
|             | V32                                     | 3.2                 | 3.4                 |
|             | V34                                     | 3.4                 | 3.6                 |
|             | V36                                     | 3.6                 | 3.8                 |
|             | V38                                     | 3.8                 | 4.0                 |

■ Characteristics Curves  $T_J=25^{\circ}\text{C}$

**RELATIVE SPECTRAL POWER DISTRIBUTION**

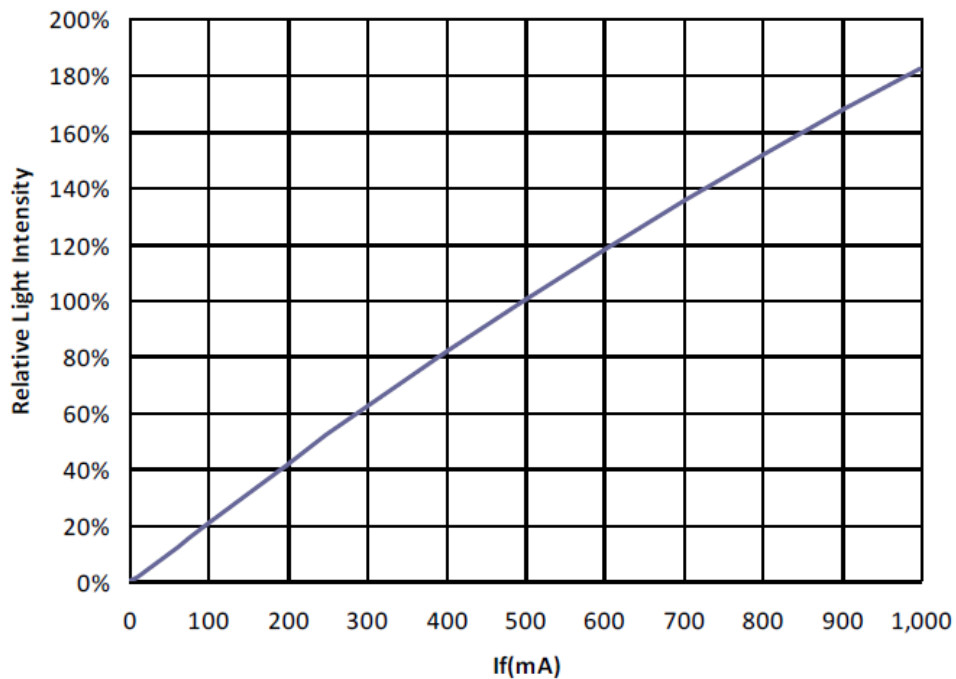


**SPATIAL DISTRIBUTION**

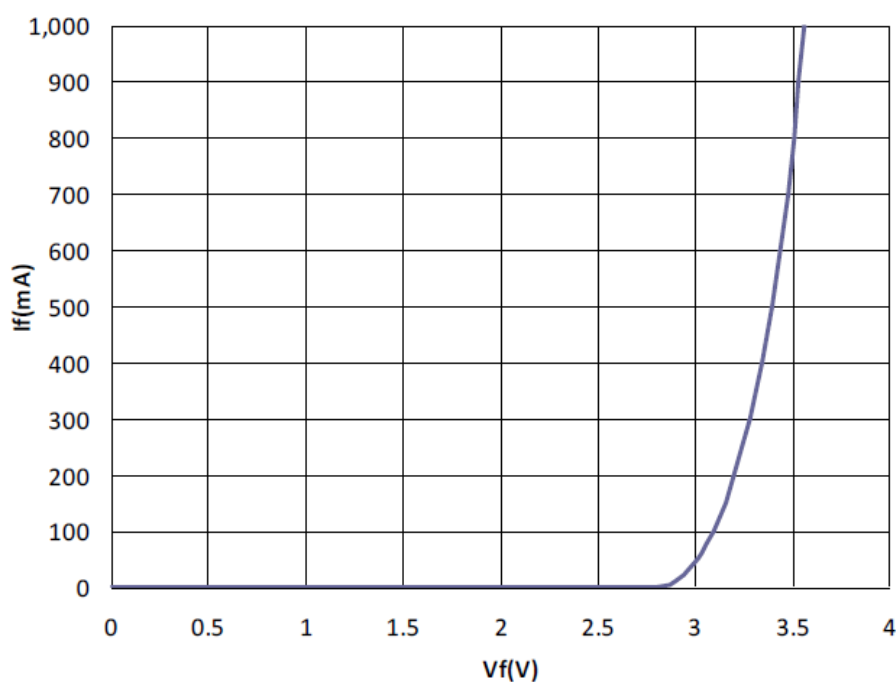


## ■ Characteristics Curves $T_J=25^{\circ}\text{C}$

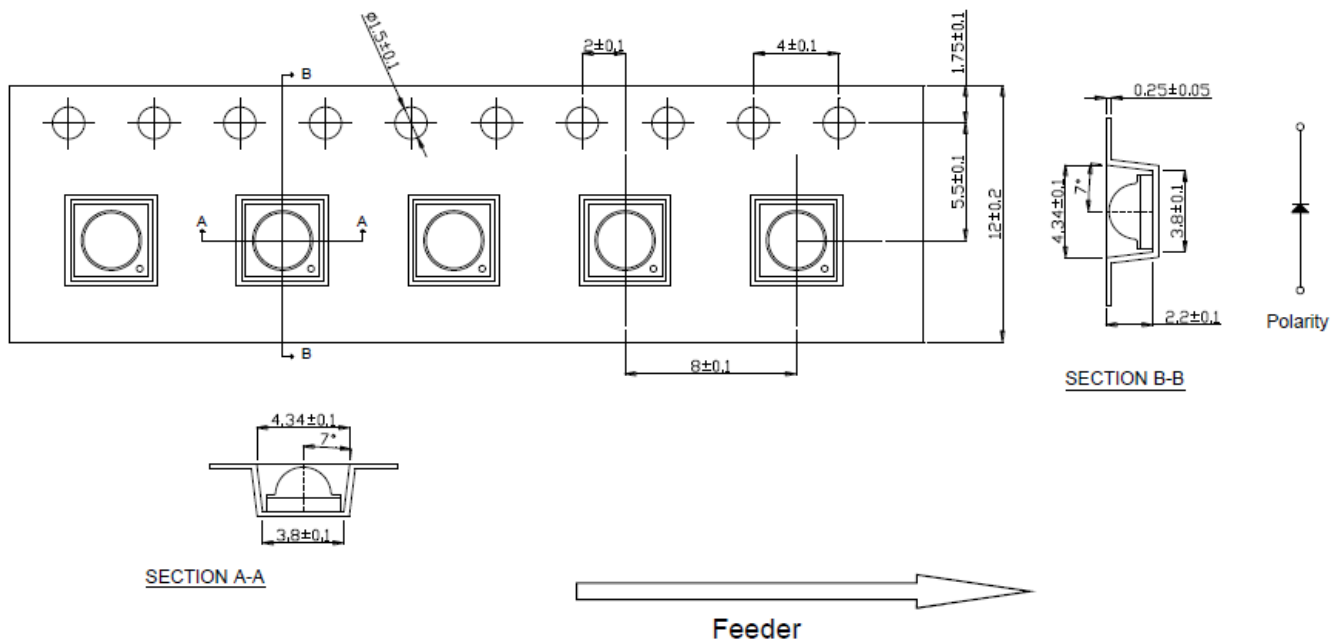
### TYPICAL FORWARD L-I CHARACTERISTICS



### TYPICAL FORWARD I-V CHARACTERISTICS



## TAPE AND REEL



### Notes:

1. All dimensions are in millimeter.
2. Tolerance is  $\pm 0.10$ mm unless otherwise noted.