



## Power DomiLED™

With its significant power in terms brightness, viewing angle and variety of application possibilities, Power DomiLED™ truly is a standout performer! Ideal for automotive interior lighting as well as home, office and industrial applications, it is also a proven performer in electronic signs and signals.

### Features:

- > High brightness surface mount LED.
- > 120° viewing angle.
- > Small package outline (LxWxH) of 3.2 x 2.8 x 1.8mm.
- > Qualified according to JEDEC moisture sensitivity Level 2.
- > Compatible to both IR reflow soldering and TTW soldering.
- > Environmental friendly; RoHS compliance.

### Applications:

- > Automotive: interior applications, eg: switches, telematics, climate control system, dashboard, etc.  
exterior applications, eg: signal lighting, Center High Mounted Stop Light (CHMSL),
- > Display: full color display video notice board.
- > Industry: white goods (eg: Oven, microwave, etc.).
- > Lighting: architecture lighting, general lighting, garden light, etc





| Part Number    | Chip Tech/Color | Viewing angle | Total Flux@30mA mlm (typ) | Luminuous Intensity@30mA Iv (mcd) |
|----------------|-----------------|---------------|---------------------------|-----------------------------------|
| BL-PWW-SJD-C10 | InGaN           | 120           | 1350                      | 285.0 - 715.0                     |
| Bin T1         | White           |               |                           | 285.0 - 355.0                     |
| Bin T2         |                 |               |                           | 355.0 - 450.0                     |
| Bin U1         |                 |               |                           | 450.0 - 560.0                     |
| Bin U2         |                 |               |                           | 560.0 - 715.0                     |
| BL-PWW-UJD-C10 | InGaN           | 120           | 2000                      | 450.0 - 1125.0                    |
| Bin U1         | White           |               |                           | 450.0 - 560.0                     |
| Bin U2         |                 |               |                           | 560.0 - 715.0                     |
| Bin V1         |                 |               |                           | 715.0 - 900.0                     |
| Bin V2         |                 |               |                           | 900.0 - 1125.0                    |
| BL-PWW-UJD-C20 | InGaN           | 120           | 3000                      | 715.0 - 1400.0                    |
| Bin V1         | White           |               |                           | 715.0 - 900.0                     |
| Bin V2         |                 |               |                           | 900.0 - 1125.0                    |
| Bin W1         |                 |               |                           | 1125.0 - 1400.0                   |

\* Not for new design

**NOTE**

1. All part number above comes in a quantity of 2000 units per reel.
2. Other luminous intensity groups may also be available upon request.
3. Luminous intensity is measured with an accuracy of  $\pm 11\%$ .
4. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.
5. InGaN wavelength is very sensitive to drive current. Operating at lower current is not recommended and may yield unpredictable performance current pulsing should be used for dimming purposes.
6. An optional Vf binning is also available upon request. Binning scheme is as per following table.



## Electrical Characteristics at Ta=25°C

| Part Number | Min. (V) | Vf @ If = 30mA |          | Vr @ Ir = 10uA<br>Min. (V) |
|-------------|----------|----------------|----------|----------------------------|
|             |          | Typ. (V)       | Max. (V) |                            |
| BL-PWW      | 3.05     | 3.40           | 4.00     | 5                          |

Forward voltages are measure using a current pulse of 1 ms and with an accuracy of  $\pm 0.1V$ .

## Vf Bining (Optional)

| Vf @ If = 30mA | Forward Voltage (V) |
|----------------|---------------------|
| 3A             | 3.05 ... 3.35       |
| 30             | 3.35 ... 3.65       |
| 31             | 3.65 ... 3.95       |
| 32             | 3.95 ... 4.25       |

Forward voltage, Vf is measured with an accuracy of  $\pm 0.1V$ .

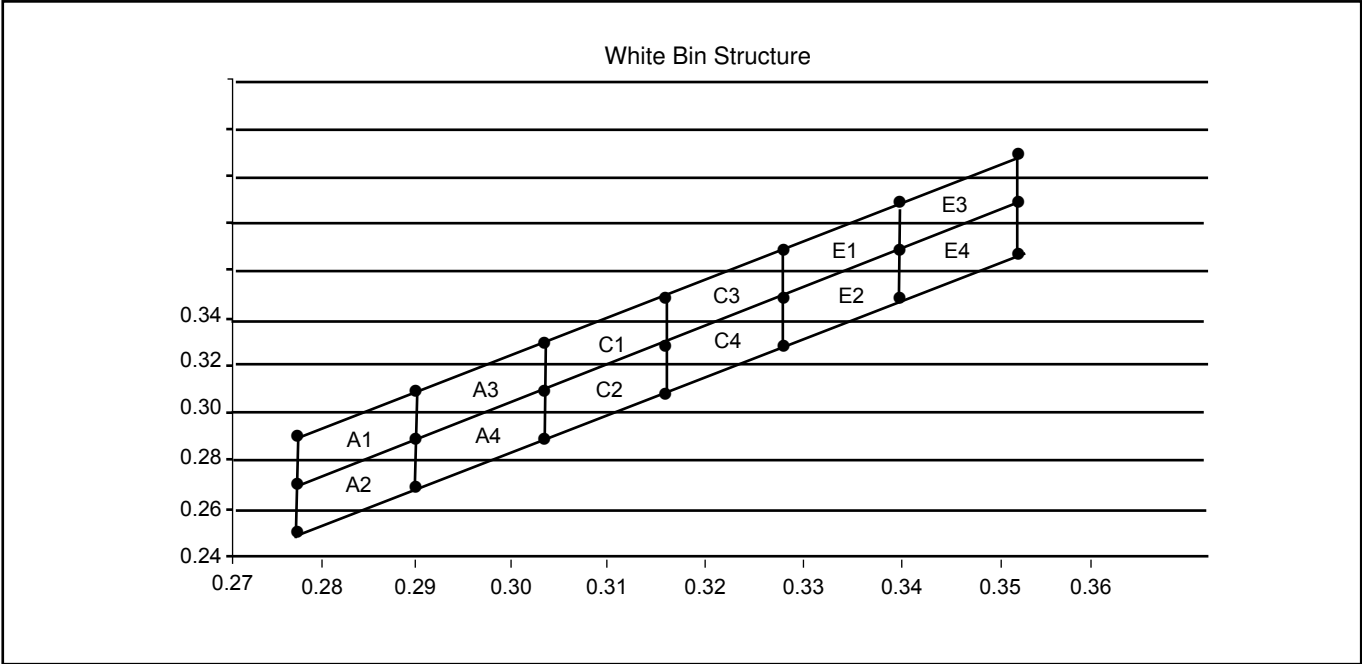
Please consult sales and marketing to incorporate special part number to incorporate Vf binning.

## Absolute Maximum Ratings

|                                                            | Maximum Value | Unit |
|------------------------------------------------------------|---------------|------|
| DC forward current                                         | 30            | mA   |
| Peak pulse current; (tp $\leq 10\mu s$ , Duty cycle = 0.1) | 200           | mA   |
| Reverse voltage; Ir (max) = 10 $\mu A$                     | 5             | V    |
| ESD Thereshold (HBM)                                       | 2             | kV   |
| LED junction temperature                                   | 125           | °C   |
| Operating temperature                                      | -40 ... +100  | °C   |
| Storage temperature                                        | -40 ... +100  | °C   |
| Power dissipation (at room temperature)                    | 135           | mW   |



BL-PWW , White coloring Group



Chromaticity coordinate groups are measured with an accuracy of  $\pm 0.01$ .

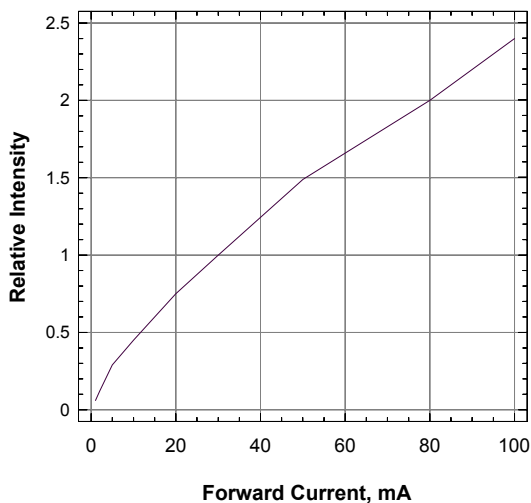
| Bin |    | W      |        |        |        |
|-----|----|--------|--------|--------|--------|
| A1  | Cx | 0.2775 | 0.2900 | 0.2900 | 0.2775 |
|     | Cy | 0.2732 | 0.2939 | 0.3114 | 0.2907 |
| A2  | Cx | 0.2775 | 0.2900 | 0.2900 | 0.2775 |
|     | Cy | 0.2557 | 0.2764 | 0.2939 | 0.2732 |
| A3  | Cx | 0.2900 | 0.3025 | 0.3025 | 0.2900 |
|     | Cy | 0.2939 | 0.3146 | 0.3321 | 0.3114 |
| A4  | Cx | 0.2900 | 0.3025 | 0.3025 | 0.2900 |
|     | Cy | 0.2764 | 0.2971 | 0.3146 | 0.2939 |
| C1  | Cx | 0.3025 | 0.3150 | 0.3150 | 0.3025 |
|     | Cy | 0.3146 | 0.3354 | 0.3529 | 0.3321 |
| C2  | Cx | 0.3025 | 0.3150 | 0.3150 | 0.3025 |
|     | Cy | 0.2971 | 0.3179 | 0.3354 | 0.3146 |
| C3  | Cx | 0.3150 | 0.3275 | 0.3275 | 0.3150 |
|     | Cy | 0.3354 | 0.3561 | 0.3736 | 0.3529 |
| C4  | Cx | 0.3150 | 0.3275 | 0.3275 | 0.3150 |
|     | Cy | 0.3179 | 0.3386 | 0.3561 | 0.3354 |

| Bin |    | X      |        |        |        |
|-----|----|--------|--------|--------|--------|
| E1  | Cx | 0.3275 | 0.3400 | 0.3400 | 0.3275 |
|     | Cy | 0.3561 | 0.3768 | 0.3943 | 0.3736 |
| E2  | Cx | 0.3275 | 0.3400 | 0.3400 | 0.3275 |
|     | Cy | 0.3386 | 0.3593 | 0.3768 | 0.3561 |
| E3  | Cx | 0.3400 | 0.3525 | 0.3525 | 0.3400 |
|     | Cy | 0.3768 | 0.3975 | 0.4150 | 0.3943 |
| E4  | Cx | 0.3400 | 0.3525 | 0.3525 | 0.3400 |
|     | Cy | 0.3593 | 0.3800 | 0.3975 | 0.3768 |

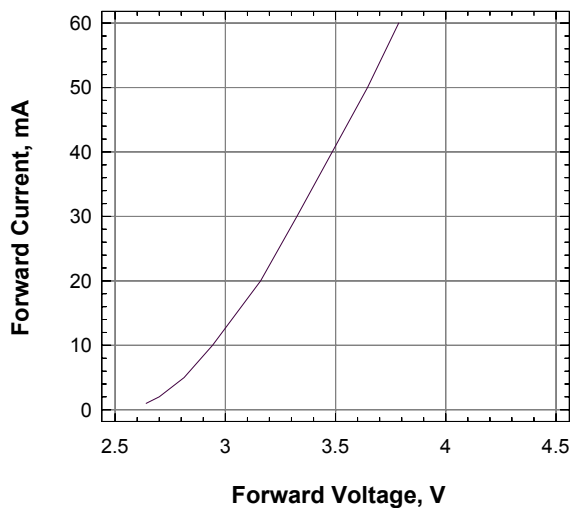
American Bright color coordinate is measured with an accuracy of  $\pm 0.01$ .



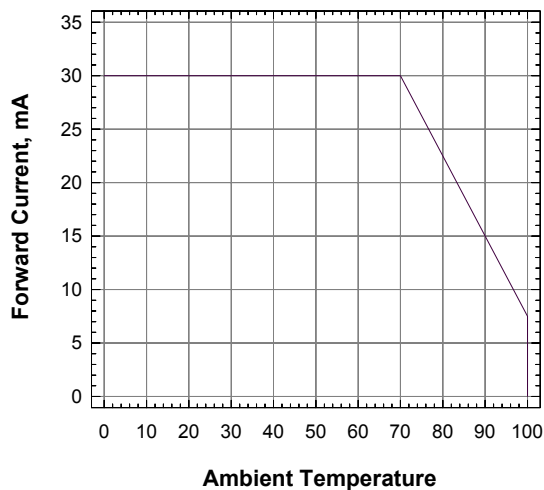
Relative Intensity Vs Forward Current



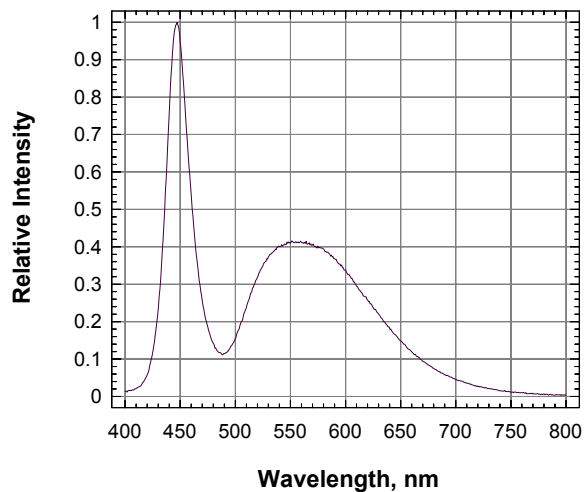
Forward Current Vs Forward Voltage



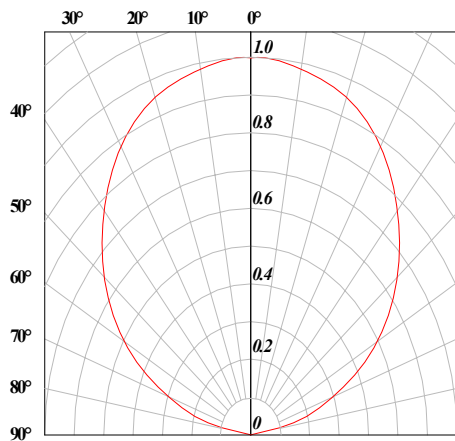
Maximum Current Vs Temperature



Wavelength Vs Forward Current

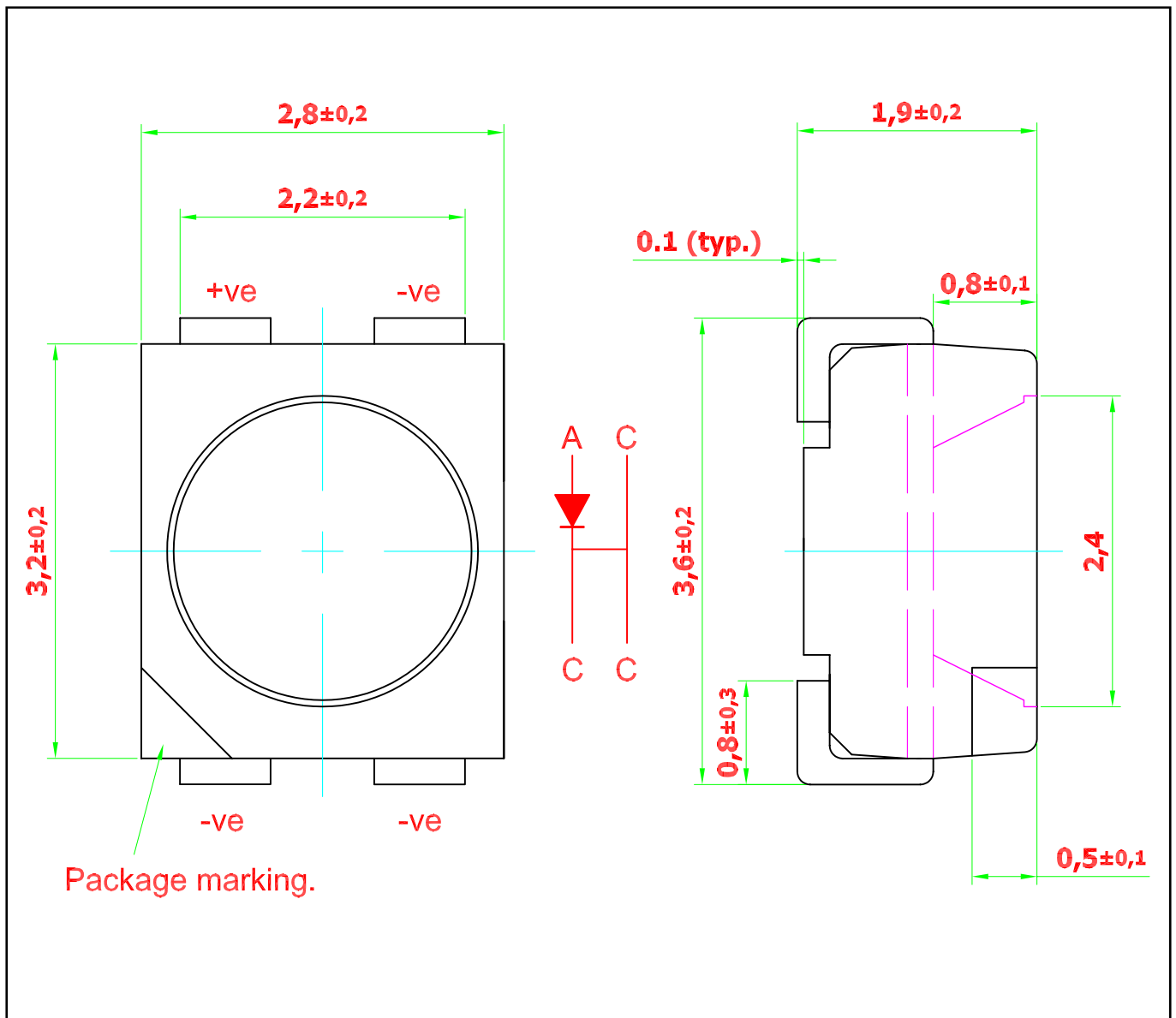


Radiation Pattern

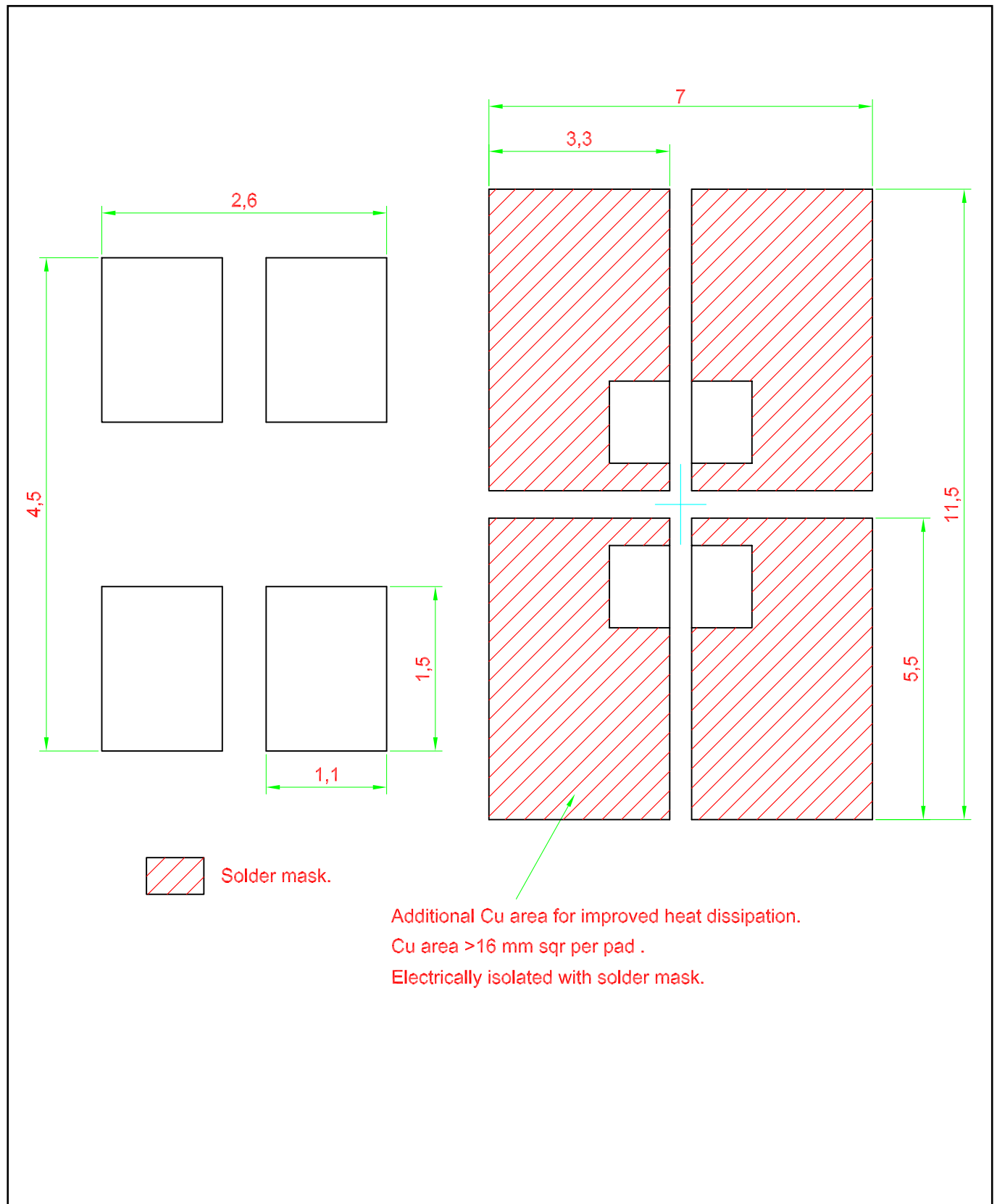




Power Domiled, InGaN BL-PWW

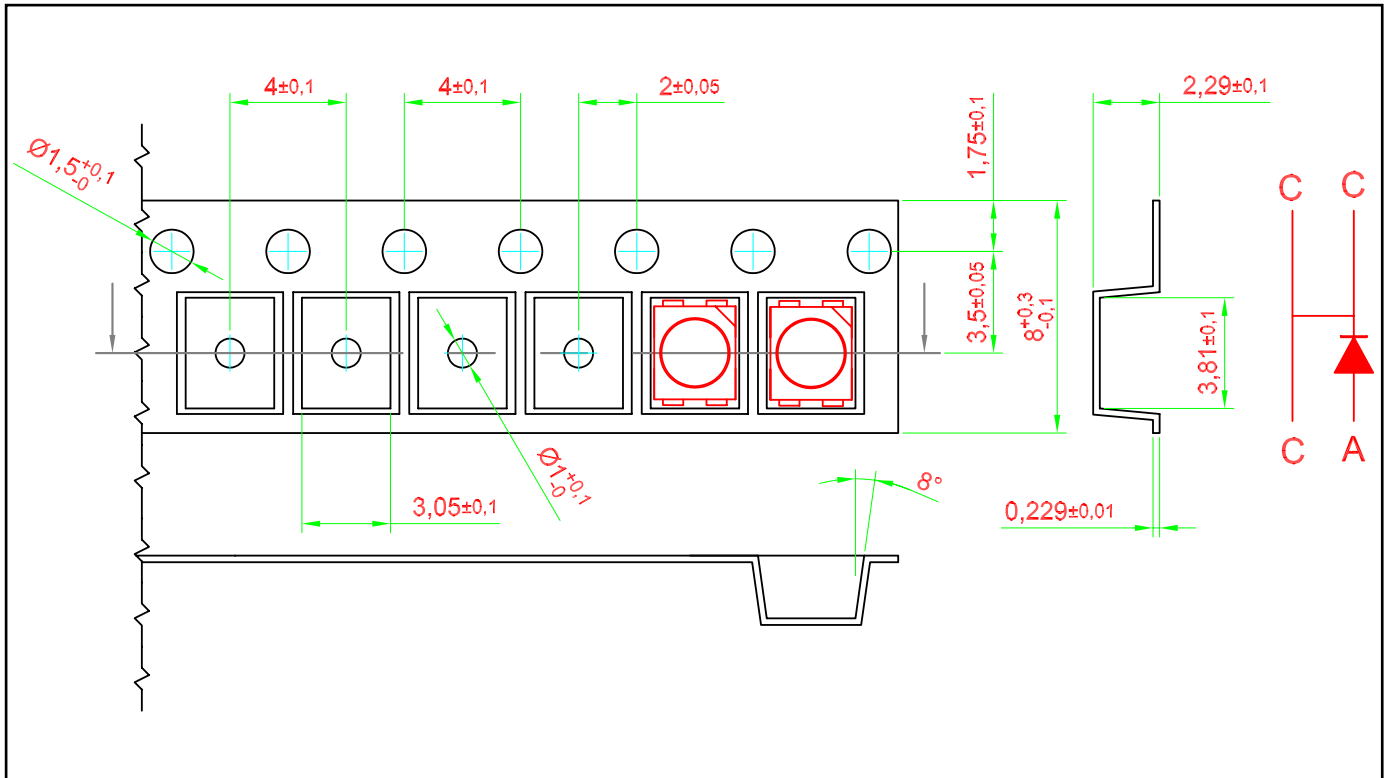


## Recommended Solder Pad



## Taping and orientation

- Reels come in quantity of 2000 units.
- Reel diameter is 180 mm.



200 mm min. for  $\varnothing 180$  reel.  
200 mm min. for  $\varnothing 330$  reel.

480 mm min. for  $\varnothing 180$  reel.  
960 mm min. for  $\varnothing 330$  reel.

