



BEELED -

Product Type: BLD-HP010UV4-E45

Version No.: 01

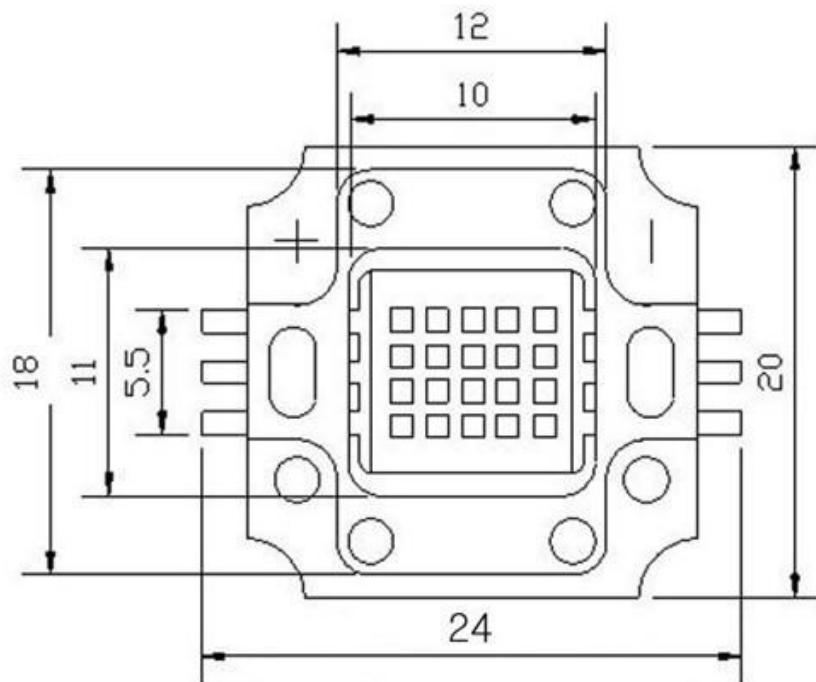
Product Description:

- 10w high power LED
- Colloid Color: Water clear
- Emission Color: UV
- Viewing Angle:140°

Dice Material: InGaAlN



Outline Drawing



Notes:

1. All dimensions are in mm tolerance is $\pm 0.25\text{mm}$ unless otherwise noted.
2. An epoxy meniscus may extend about 1.2mm down the leads.
3. Burr around bottom of epoxy may be 0.5mm max.



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Absolute Maximum Ratings (Ta = 25°C)

| Items | Symbol | Maximum | Units |
|----------------------------|--------------------|--|-------|
| DC Forward Current | I _F | 350 | mA |
| Peak pulse current | I _{Pulse} | 700 | mA |
| Reverse Voltage | V _R | 45 | V |
| Power consumption | P _D | 10 | W |
| Operation Temperature | T _{opr} | -20~+75 | °C |
| Storage Temperature | T _{stg} | -30~+80 | °C |
| Lead Soldering Temperature | T _{sol} | Max 260°C for 5 sec Max. (3mm from the base of the body) | |

* Pulse width≤0.1msec duty≤1/10

Product Optical Properties (Ta = 25°C)

| Item | Symbol | Conditions | Min | Average | Max | Units |
|-----------------------------------|-----------------------|-----------------------|------|---------|------|-------|
| Forward Voltage | V _F | I _F =350mA | 27 | 28.5 | 30 | V |
| Reverse current | I _R | V _R =45v | --- | 10 | --- | µA |
| Color Temperature | CCT | I _F =350mA | ---- | ---- | --- | K |
| Peak Wavelength | λ _p | I _F =350mA | 370 | --- | 375 | nm |
| Radiometric Power | I _v | I _F =350mA | 900 | | 1000 | mW |
| Luminous Intensity | I _v | I _F =350mA | 270 | --- | 320 | lm |
| Thermal Resistance Junction Board | RQ _{J-P} | I _F =350mA | | 7.0 | | °C/W |
| 50% power Angle | 2θ ^{1/2} H-H | I _F =350mA | --- | 140 | --- | deg |
| | 2θ ^{1/2} V-V | I _F =350mA | | --- | --- | deg |

Important Notes:

- 1) All ranks will be included per delivery; rank ratio will be determined by BEELED



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- 2) Tolerance of measurement of luminous intensity is $\pm 15\%$.
- 3) Tolerance of measurement of VF is ± 0.05 V.
- 4) Color Coordinates Measurement allowance is ± 0.015 .
- 5) For reliability test conditions and data, Please refer to “Reliability Test” section on page 5.
- 6) As we are making continuous efforts to improve the performance of LED, Specifications are subject to change without notice.

Reliability Test Standards

| Type | Test item | Applicable standard | Test condition | Duration | Sampling number | Accept criteria |
|------------------------|--|--------------------------|---|--------------|-----------------|-----------------|
| environment test | Temperature cycles | JEITA ED-4701 100 105 | -40°C ~ 25°C ~ 100°C ~ 25°C 30min 5min 30min 5min | 100cycles | 100 | 0 |
| | Thermal shock | MIL-STD-202G | -40°C ~ 100°C 15min 15min | 300cycles | 100 | 0 |
| | High humidity heat cycles | JEITA ED-4701 200 203 | 30°C ~ 65°C RH=90% 24hrs/1 cycle | 50cycles | 100 | 0 |
| | High temperature storage | JEITA ED-4701 200 201 | T _a =100°C | 1000hrs | 100 | 0 |
| | Low temperature storage | JEITA ED-4701 200 202 | T _a =-40°C | 1000hrs | 100 | 0 |
| | High temperature & high humidity storage | JEITA ED-4701 100 103 | T _a =60°C RH=90% | 1000hrs | 100 | 0 |
| life test | Life test | | T _a =25°C If=600mA(R,G,Y)/500mA(W,B) | 1000hrs | 100 | 0 |
| | High temperature & high humidity life test | | T _a =60°C RH=90% If=600mA(R,G,Y)/500mA(W,B) | 1000hrs | 100 | 0 |
| | Low temperature life test | | T _a =-30°C If=600mA(R,G,Y)/500mA(W,B) | 1000hrs | 100 | 0 |
| destructive experiment | Resistance to soldering heat | JEITA ED-4701 300 302 | T _{sol} =260°C ± 5°C, 10sec 3mm from the base of the body | one time | 20 | 0 |
| | Solderability | JEITA ED-4701 300 303 | T _{sol} =235°C ± 5°C, 5sec using flux | one time | 20 | 0 |
| ESD | Electrostatic discharge test | AEC Q101-001 | Human body model 1000V forward and reverse | each 3 times | 10 | 0 |
| physical experiment | Vibration | JEITA ED-4701 400 403 | 20G 20-2000HZ 4mins X,Y,Z 3directions | each 4cycles | 10 | 0 |
| | Drop | JEITA ED-4701 300 304 | 75CM | 3 times | 10 | 0 |