

High Power Emitter LED

P/N: EK3W3EAF-1 (White)



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



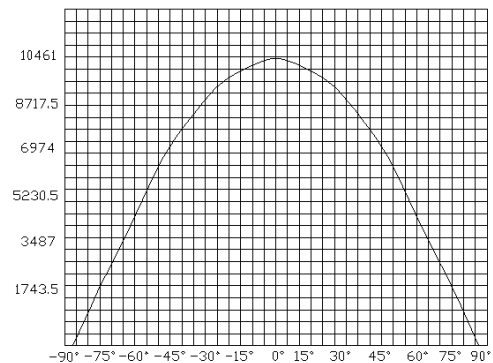
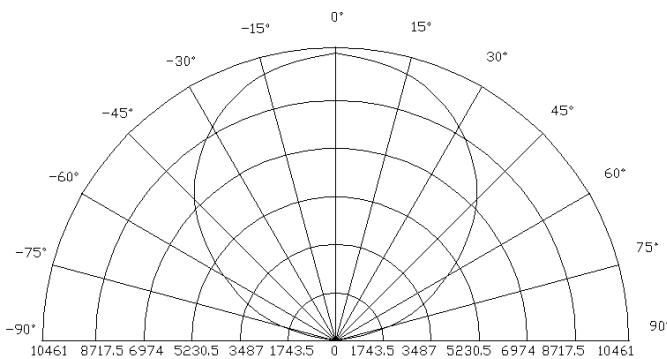
Features

- Long operating life
- Highest flux
- Available in White:2500K-25000K
- Lambertian radiation pattern
- More energy efficient than incandescent and most halogen lamps
- Low voltage DC operated
- Cool beam, safe to the touch
- Instant light (less than 100ns)
- Fully dimmable
- No UV
- Superior ESD protection
- Eutectic die bonding
- RoHS compliant

Applications

- Reading lights (car, bus, aircraft)
- LCD Backlights/light Guides
- Fiber optic alternative/ Decorative / Entertainment
- Mini-accent/Up lighters/Down lighters/ Orientation
- Indoor/Outdoor commercial and Residential Architectural
- Cove/Under shelf/Task
- Bollards/Security/Garden
- Portable (flashlight, bicycle)
- Edge-lit signs (Exit, point of sale)
- Automotive Exit (Stop-Tail-Turn,CHMSL, Mirror Side Repeat)
- Traffic signaling / Beacons / RailCrossing and Wayside

Radiation Pattern



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Typical Optical/ Electrical Characteristics @T_J=25°C

| Item | Symbol | Condition | Min. | Typ. | Max. | Unit |
|-------------------------------------|-----------------|-----------|-------|------|------|------|
| Forward Voltage | V _F | IF=800mA | 3.2 | -- | 4.2 | V |
| Reverse Current | I _R | VR=5v | -- | -- | 50 | uA |
| 50% Power Angle | 2θ1/2 | IF=800mA | 110 | -- | 140 | deg |
| Luminous Intensity | φ _v | IF=800mA | 168.4 | | -- | lm |
| Recommend Forward Current | I _F | -- | -- | 800 | -- | mA |
| Chromaticity | T _C | IF=800mA | 6000 | -- | 7000 | k |
| Thermal Resistance,Junction to Case | R _{JP} | IF=800mA | -- | 10 | -- | °C/w |

The sample delivers goods data

| Item | Symbol | Condition | Min. | Avg. | Max. | Unit |
|-------------------------|----------------|-----------|------|------|------|------|
| Luminous Intensity | φ _v | IF=800mA | | | | lm |
| 50% Power Angle | 2θ1/2 | | | | | deg |
| Forward Voltage | V _F | | | | | v |
| Chromaticity | T _C | | | | | k |
| White Color Region | -- | | | | | |
| ChromaticityCoordinates | X=-- | | | Y=-- | | |

Notes:

- 1.Tolerance of measurement of forward voltage±0.1V.
- 2.Tolerance of measurement of peak Wavelength±2.0nm.
- 3.Tolerance of measurement of luminous intensity±15%.

Absolute Maximum Rating

| Item | Symbol | Absolute Maximum Rating | Unit |
|-----------------------------|------------------|--------------------------|------|
| Forward Current | I _F | 800 | mA |
| Peak Forward Current* | I _{FP} | 1000 | mA |
| Reverse Voltage | V _R | 5 | V |
| Power Dissipation | P _D | 3000 | mW |
| Electrostatic discharge | E _{SD} | ±2000 | V |
| Operation Temperature | T _{OPR} | -40~+80 | °C |
| Storage Temperature | T _{STG} | -40~+100 | °C |
| Lead Soldering Temperature* | T _{SOL} | Max. 260°C for 3sec Max. | |

*IFP Conditions: Pulse Width≤10msec duty≤1/10

* All high power emitter LED products mounted on aluminum metal-core printed circuit board, can be lighted directly, but we do not recommend lighting the high power products for more than 5 seconds without a appropriate heat dissipation equipment.

* Re-flow,wave peak and soak-stannum soldering etc.is not suitable for this products.

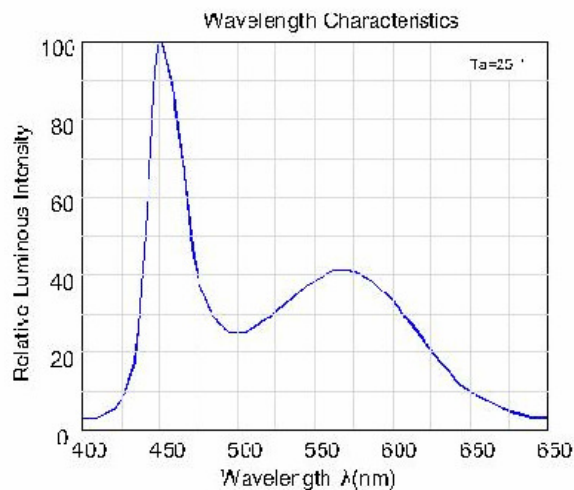
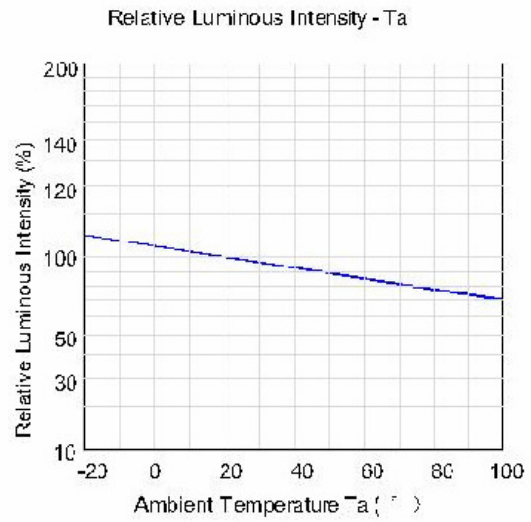
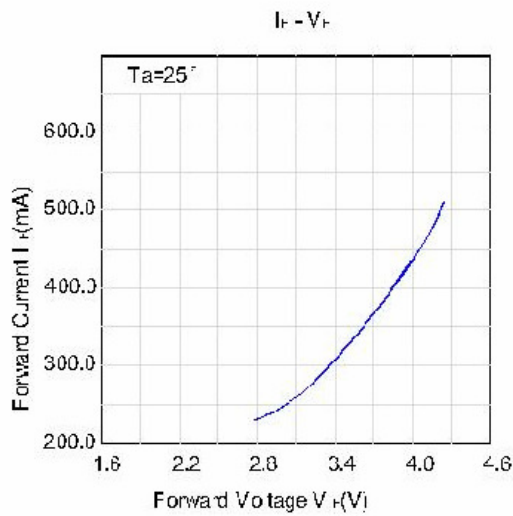
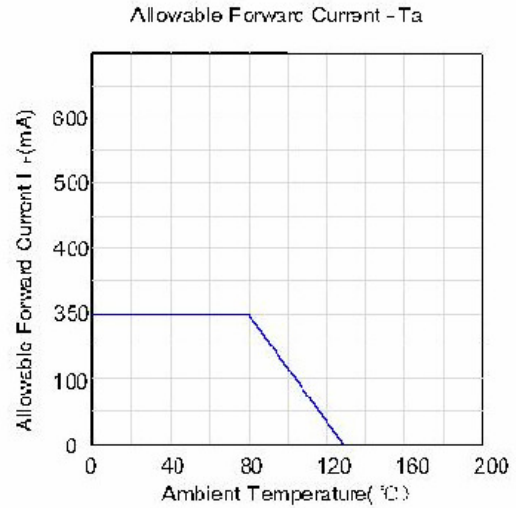
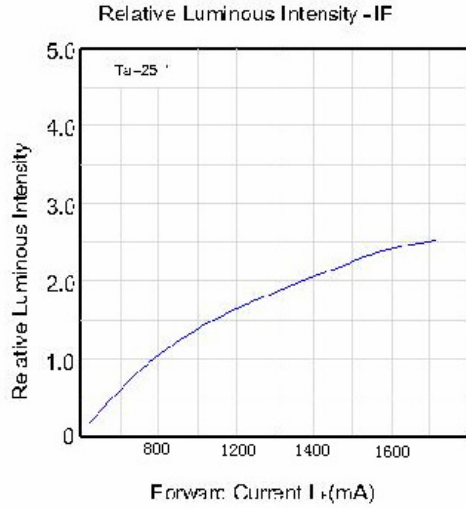
* Suggest to solder it by professional high power LED soldering machine.

* Can use invariable-temperature searing-iron with soldering condition:≤260 degree less than 3 seconds.

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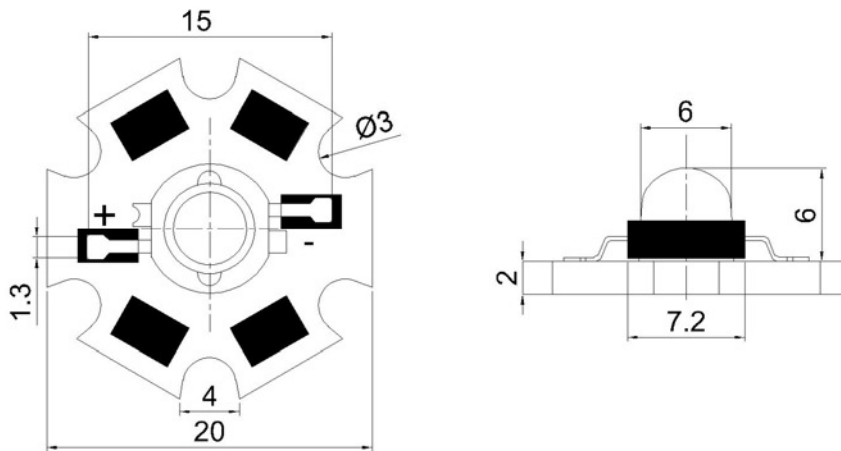
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Typical Optical/Electrical Characteristics Curves ($T_J=25^\circ\text{C}$ Unless Otherwise Noted)



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Package Dimensions



Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is $\pm 0.2\text{mm}$ unless otherwise noted.

Tape Specifications(Units:mm)

