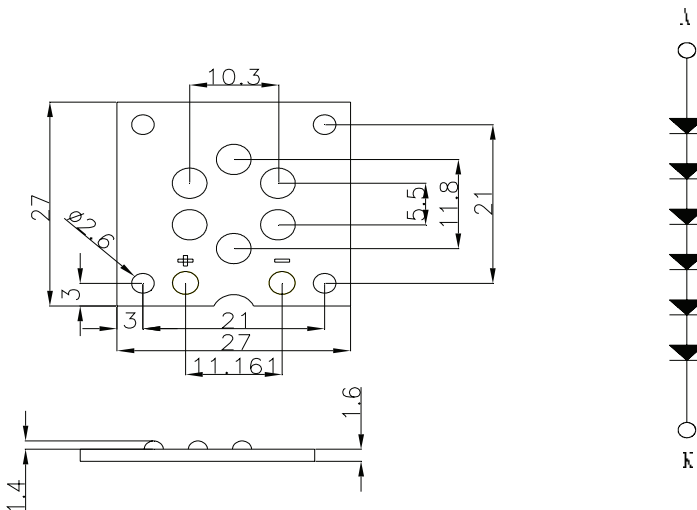


High Power 6W LED



Package Dimensions:



All dimensions are in mm
Tolerance: $\pm 0.25\text{mm}$

Features:

- Excellent transiting heat from LED chip operating under 350mA
- High luminous output
- No UV

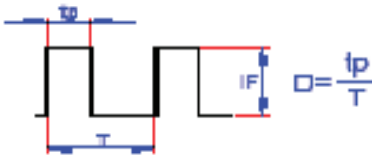
Applications:

- Reading lights
- Portable flashlight
- Uplighters & downlighters
- Garden lighting
- LCD backlights / light guides
- General lighting Portable flashlight

Absolute Maximum Ratings at Ta=25°C

| Parameter | Rating | Unit |
|---|---|------|
| Power Dissipation | 6,650 | mW |
| LED Junction Temperature | 120 | °C |
| Reverse Voltage | 5 | V |
| D.C. Forward Current | 350 | mA |
| Pulsed Forward Current (tp ≤ 100µs, Duty cycle = 0.005) × 1 | 700 | mA |
| Operating Temperature Range | -40 to +75 | °C |
| Storage Temperature Range | -40 to +100 | °C |
| Soldering Temperature | Reflow Soldering : 260°C for 10sec Hand Soldering: 350°C for 3sec. | |

Duty Cycle:



- Proper current derating must be observed to maintain junction temperature below the maximum.
- All products no sensitive to ESD damage (6000 Volts by HBM condition)
- Be careful with a powered up current limited power supply, because of current spikes during power up and/or connection. Best practice is to connect the LED then turn up the voltage gradually. People building their own power supplies should design for minimum current spikes during power up and connection.
- For best results the customer needs to provide proper control of the thermal path, protect against electrical overstress conditions and ensure they are properly attached to the heat sink.
- It is strongly recommended that the temperature of lead does not exceed 55°C.
- It is strongly recommended to apply an electrically isolated heat conducting film between the slug and contact surfaces

Electrical & Optical Characteristics

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Unit |
|--------------------------------------|--------------------|-----------|------|--------|------|---------|
| Luminous Flux | Φ_V | IF=350mA | 300 | 400 | | lm |
| Efficiency | η | IF=350mA | | 70 | | Lm/W |
| CIE Chromaticity Coordinates: X Axis | X | IF=350mA | | 0.4578 | | |
| CIE Chromaticity Coordinates: Y Axis | Y | IF=350mA | | 0.4101 | | |
| Forward Voltage | VF | IF=350mA | 15 | | 20 | V |
| Correlated Colour Temperature | CCT | IF=350mA | | 2750 | | K |
| Thermal Resistance Junction to Case | $R_{\theta_{J-C}}$ | IF=350mA | | 9 | | °C/W |
| Reverse Current | IR | VF=5V | | | 50 | μ A |
| Viewing Angle at 50% IV | $2\theta_{1/2}$ | IF=350mA | | 120 | | Deg. |

Notes: 1. The data is tested by IS tester.
2. Customer's special requirements are also welcome.

Typical Electrical & Optical Characteristics Curves:

(25°C Ambient temperature unless otherwise noted)

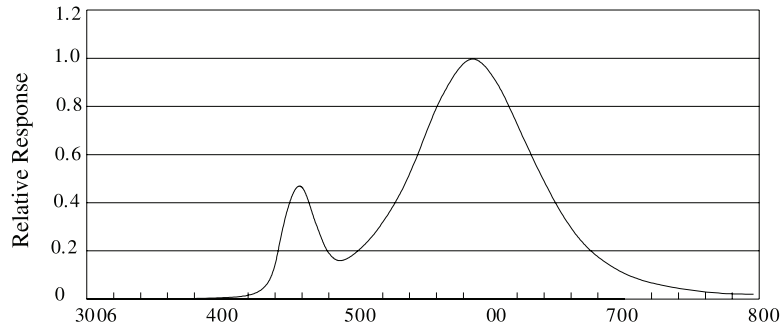
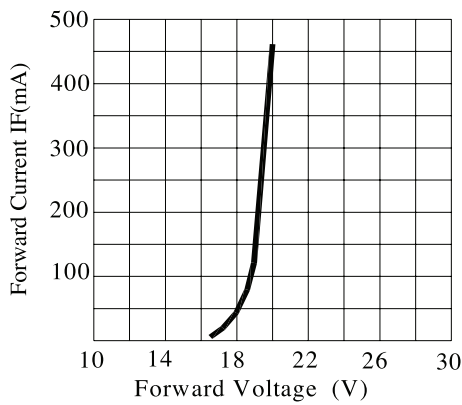
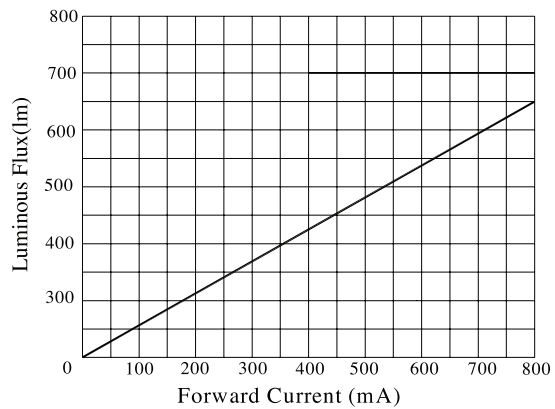


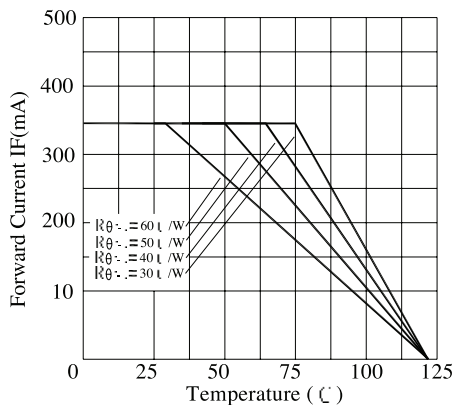
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



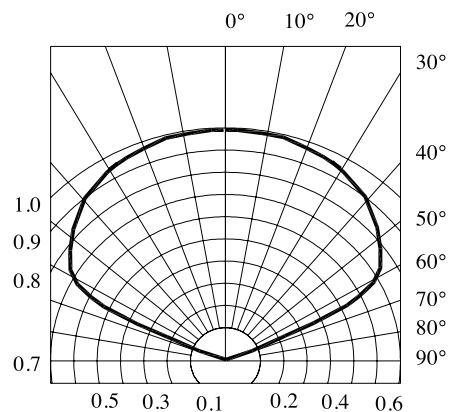
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Flux



Ambient Temperature VS. Forward Current



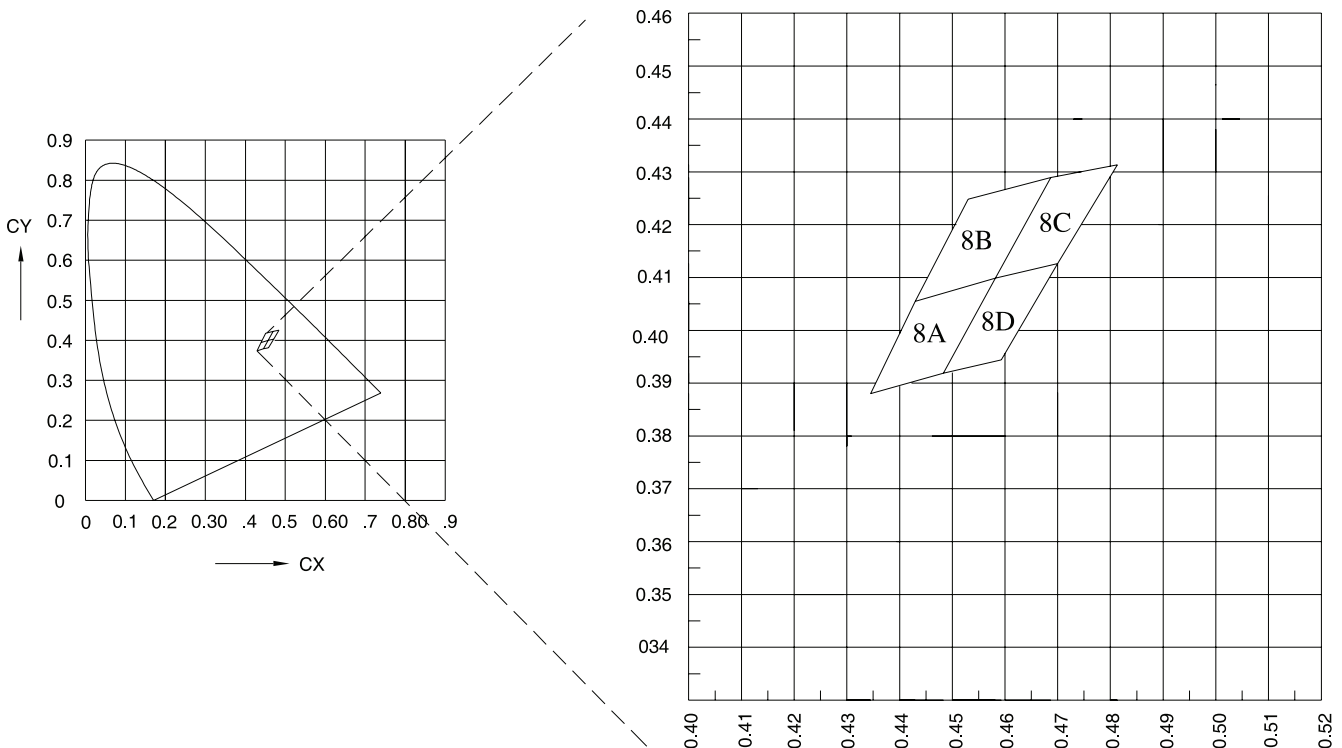
Radiation Diagram

Chromaticity Coordinates Specifications for Bin Grading:

| Bin | Rank | | | | |
|-----|------|--------|--------|--------|--------|
| | X | Y | Z | u' | |
| 8A | X | 0.4345 | 0.4430 | 0.4582 | 0.4483 |
| | Y | 0.3880 | 0.4055 | 0.4099 | 0.3919 |
| 8B | X | 0.4430 | 0.4530 | 0.4687 | 0.4582 |
| | Y | 0.4055 | 0.4248 | 0.4289 | 0.4099 |
| 8C | X | 0.4582 | 0.4687 | 0.4813 | 0.4700 |
| | Y | 0.4099 | 0.4289 | 0.4319 | 0.4126 |
| 8D | X | 0.4483 | 0.4582 | 0.4700 | 0.4593 |
| | Y | 0.3919 | 0.4099 | 0.4126 | 0.3944 |

Note: X, Y
Tolerance each Bin limit is ± 0.01

Chromaticity Coordinates & Bin Grading Diagram:



High Power 6W LED



Part Number Table

| LED Chip | | Lens Colour | Part Number |
|-------------|--------------------|-------------|-------------|
| Material | Colour Coordinates | | |
| InGaN/Metal | Warm white | Water clear | 703-0123 |

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