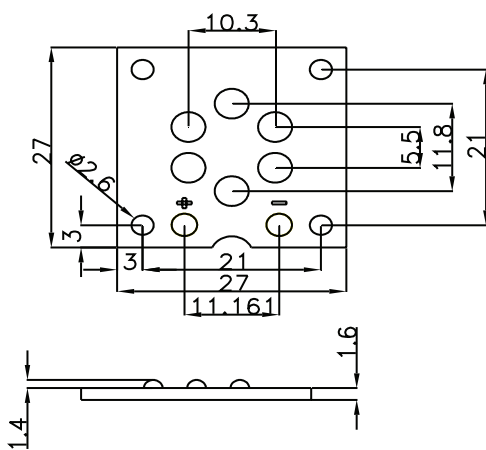


High Power 6W LED



Package Dimensions:



Features:

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

Applications:

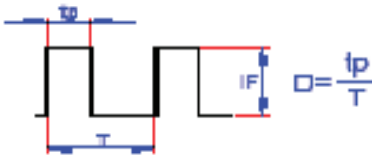
- Reading lights
- Portable flashlight
- Uplighters & downlighters
- Garden lighting
- LCD backlights / light guides
- General lighting Portable flashlight

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

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Rating	Unit
Power Dissipation	7,000	mW
LED Junction Temperature	120	$^\circ\text{C}$
Reverse Voltage	5	V
D.C. Forward Current	350	mA
Pulsed Forward Current ($t_p \leq 100\mu\text{s}$, Duty cycle = 0.005) $\times 1$	700	mA
Operating Temperature Range	-40 to +75	$^\circ\text{C}$
Storage Temperature Range	-40 to +100	$^\circ\text{C}$
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	450	550		lm
Efficiency	η	IF=350mA		93		Lm/W
CIE Chromaticity Coordinates: X Axis	X	IF=350mA		0.3357		
CIE Chromaticity Coordinates: Y Axis	Y	IF=350mA		0.3555		
Forward Voltage	VF	IF=350mA	16		21	V
Correlated Colour Temperature	CCT	IF=350mA	5,000		5,750	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.

High Power 6W LED



Typical Electrical & Optical Characteristics Curves:

(25°C Ambient temperature unless otherwise noted)

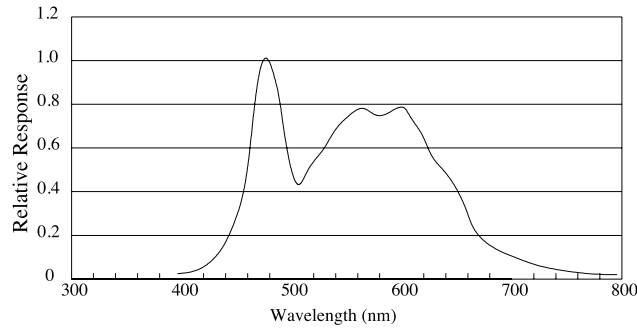
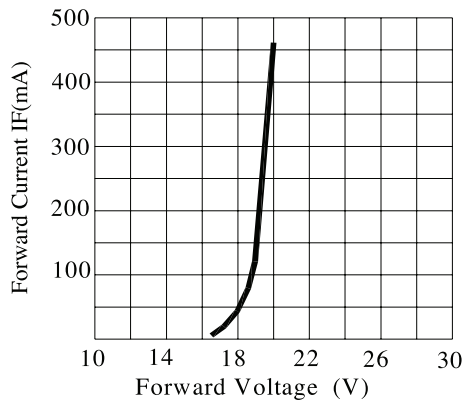
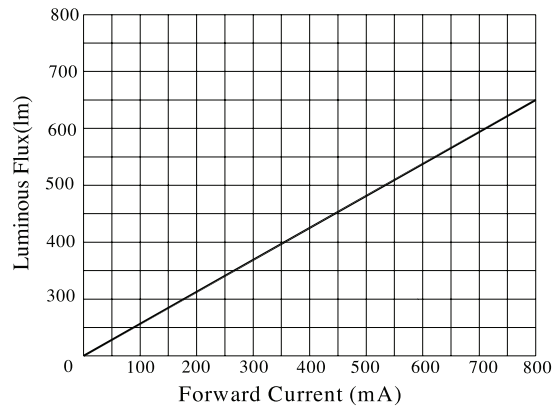


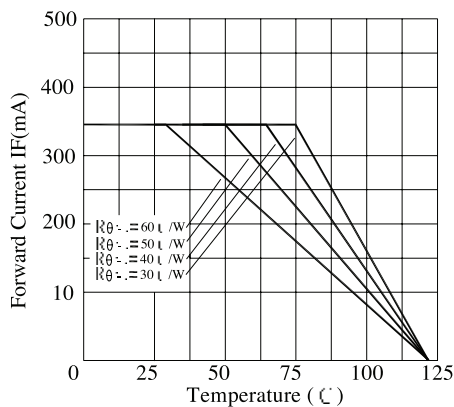
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



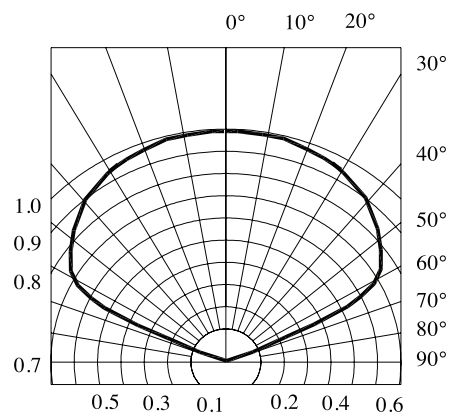
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Flux



Ambient Temperature VS. Forward Current



Radiation Diagram

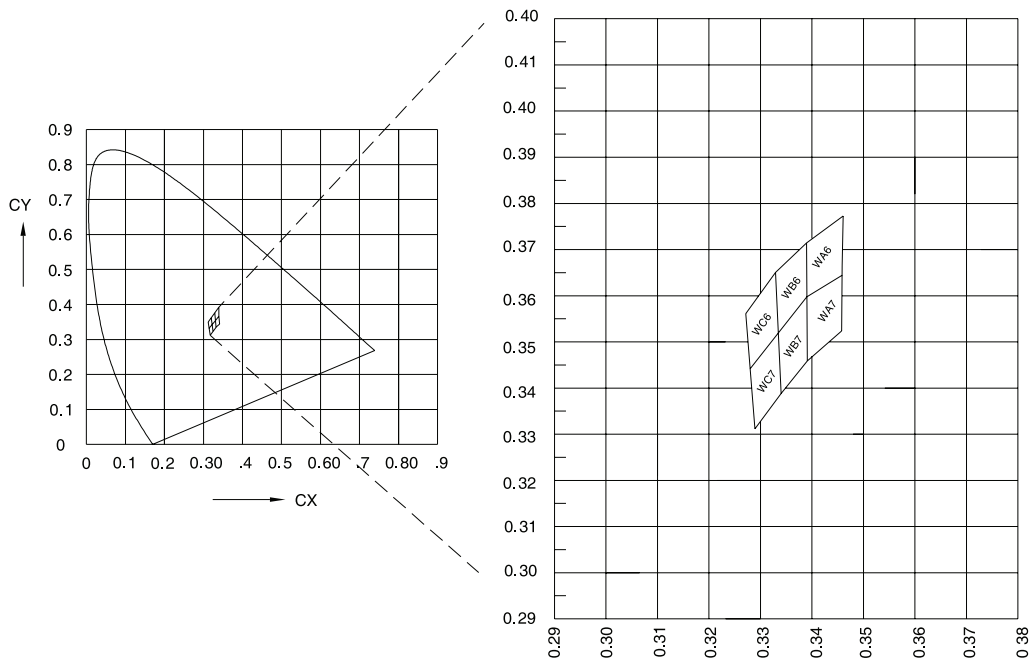


Chromaticity Coordinates Specifications for Bin Grading:

Region	X	Y	Region	X	Y
WA6	0.3394	0.3719	WA7	0.3390	0.3591
	0.3473	0.3800		0.3463	0.3670
	0.3463	0.3670		0.3453	0.3550
	0.3390	0.3591		0.3385	0.3465
WB6	0.3327	0.3650	WB7	0.3324	0.3519
	0.3394	0.3719		0.3390	0.3591
	0.3390	0.3591		0.3385	0.3465
	0.3324	0.3519		0.3324	0.3388
WC6	0.3264	0.3551	WC7	0.3268	0.3430
	0.3327	0.3650		0.3324	0.3519
	0.3324	0.3519		0.3324	0.3388
	0.3268	0.3430		0.3272	0.3305

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	Emitting Colour		
InGaN/Metal	White	Water clear	703-0122

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