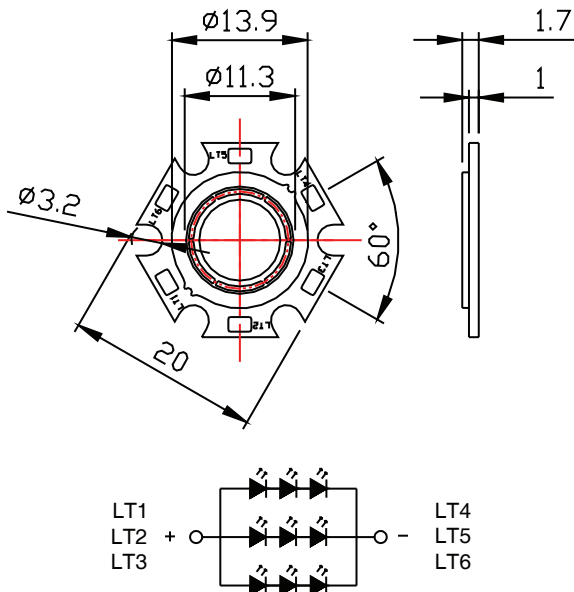


10W High Power LED



Package Dimensions:



Features:

- Pb-Free soldering application
- Multi-Chip package
- High reliability

Applications:

- Bulb
- Indoor decoration lighting
- Signal and symbol luminaries
- Reading lights
- Portable flashlight

Modify Issues:

- Package Dimensions: revised polarity mark
- Electrical & Optical Characteristics: revised luminous flux, correlated colour, temperature & forward voltage data. Add luminous flux & forward voltage rank
- Add bin grading: WE6, WE7

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

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

Parameter	Symbol	Rating	Unit
Power Dissipation*	P_D	1,260	mW
LED Junction Temperature*	T_j	120	V
Reverse Voltage*	V_r	5	mA
D.C. Forward Current*	I_r	350	μA
Peak Current (1 / 10 Duty Cycle, 0.1ms Pulse Width)*	I_f (Peak)	1,000	mA
Storage Temperature Range	$T_{stg.}$	-40 to +85	$^\circ\text{C}$
Soldering Temperature (1.6mm from body)	$T_{sld.}$	Dip Soldering: 260°C for 10sec. Hand Soldering: 350°C for 3sec.	
Electric Static Discharge Threshold (HBM)*	ESD	300	V

* The values are based on 1 die performance.

Electrical & Optical Characteristics

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Luminous Flux	Φ _v	IF=1,050mA	700	800		lm	
			Rank L1	700			800
			Rank L2	800			900
Forward Voltage	VF	IF=1,050m		9.5		V	
			Rank V1	9			9.5
			Rank V2	9.51			10
			Rank V3	10.01			10.5
Correlated Colour Temperature	CCT	IF=1,050mA	5,250	5,750		K	
CIE Chromaticity Coordinates: X Axis	X	IF=1,050mA		0.3287			
CIE Chromaticity Coordinates: Y Axis	Y	IF=1,050mA		0.3417			
Reverse Current	I _R	V _r =5V			50	μA	
Colour Rendering Index	CRI	IF=1,050mA		72		Ra	
Viewing Angle at 50%		2 θ ½		120		Deg	
Thermal Resistance Junction to Case		R θ j-c		15		°C / W	

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)

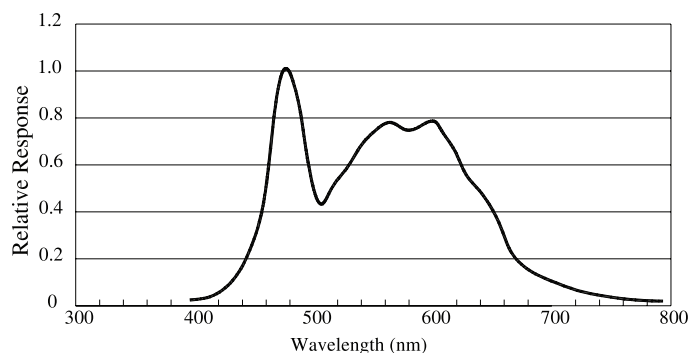
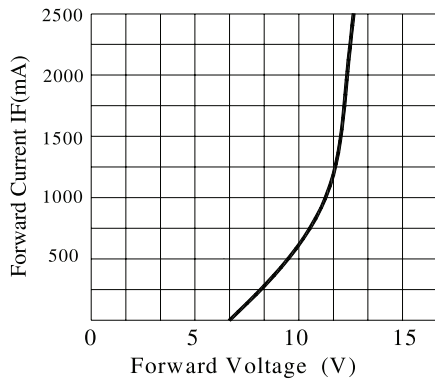
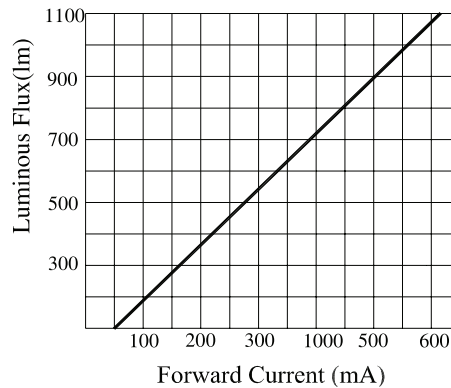


Fig.1 WHITE LED Spectrum VS. WAVELENGTH

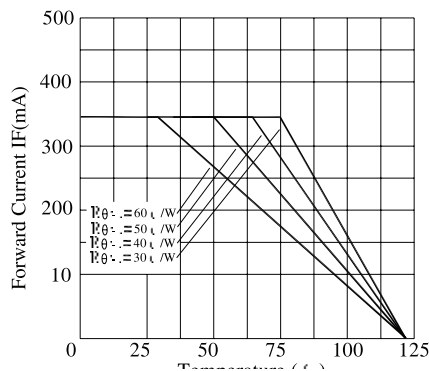
10W High Power LED



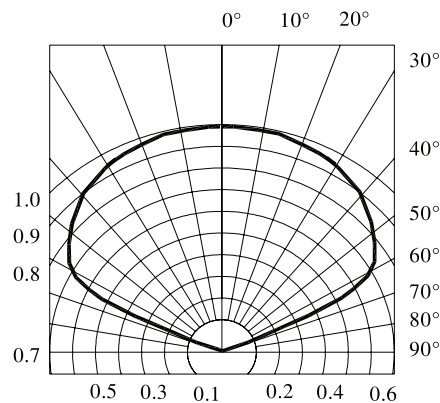
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Flux



Ambient Temperature VS. Forward Current



Radiation Diagram

Chromaticity Coordinates Specifications for Bin Grading:

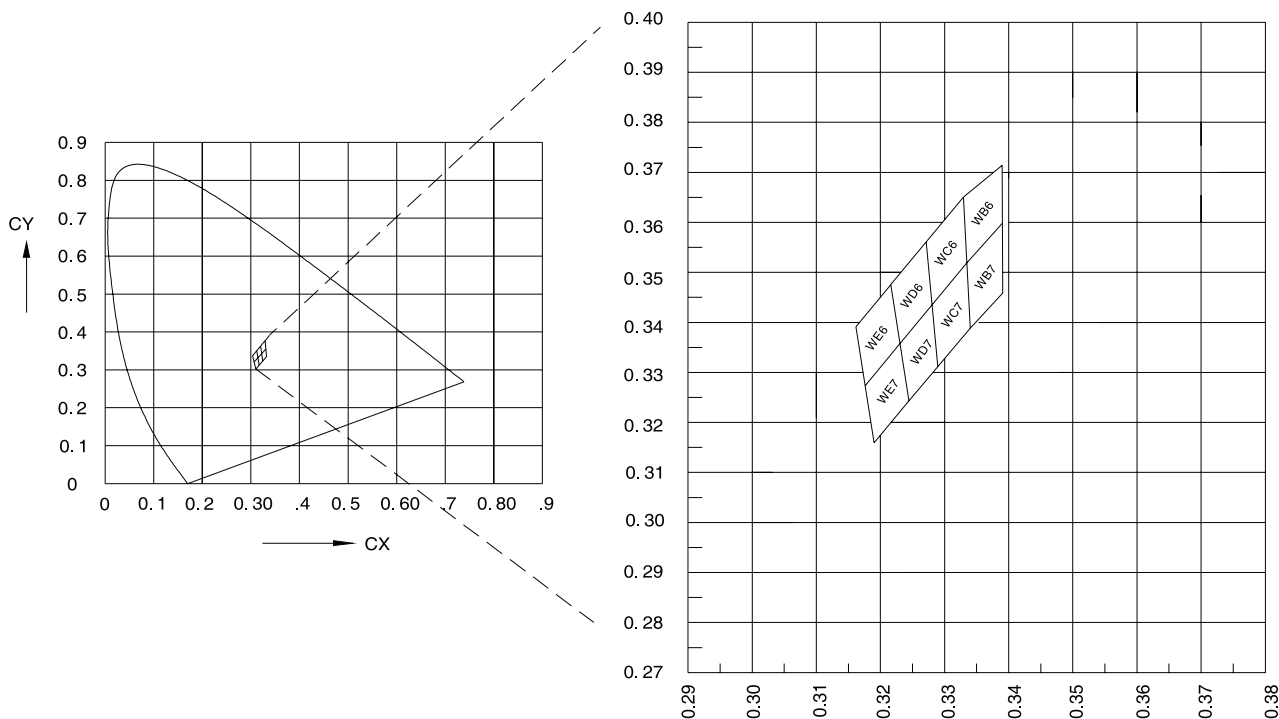
Bin	Rank					Bin	Rank				
WB6	X	0.3327	0.3394	0.3390	0.3324	WB7	X	0.3324	0.3390	0.3385	0.3324
	Y	0.3650	0.3719	0.3591	0.3519		Y	0.3519	0.3591	0.3465	0.3388
WC6	X	0.3264	0.3327	0.3324	0.3268	WC7	X	0.3268	0.3324	0.3324	0.3272
	Y	0.3551	0.3650	0.3519	0.3430		Y	0.3430	0.3519	0.3388	0.3305
WD6	X	0.3210	0.3264	0.3268	0.3218	WD7	X	0.3218	0.3268	0.3272	0.3227
	Y	0.3468	0.3551	0.3430	0.3353		Y	0.3353	0.3430	0.3305	0.3233
WE6	X	0.3164	0.3210	0.3218	0.3175	WE7	X	0.3175	0.3218	0.3227	0.3186
	Y	0.3395	0.3468	0.3353	0.3283		Y	0.3283	0.3353	0.3233	0.3169

Note: X, Y

Tolerance each Bin limit is ± 0.01



Chromaticity Coordinates & Bin Grading Diagram:



Part Number Table

LED Chip		Lens Colour	Part Number
Material	Colour Coordinates		
InGaN/Sapphire	White	Yellow diffused	703-0120

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