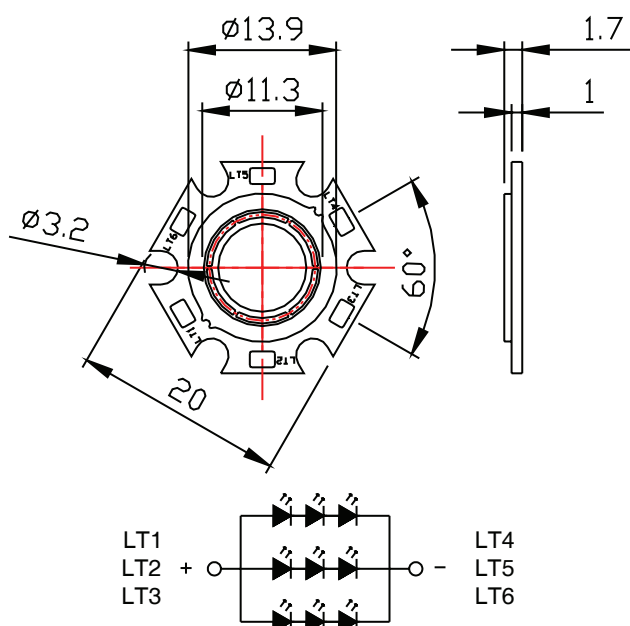


# 5W High Power LED



## 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

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	$^\circ\text{C}$
Reverse Voltage*	$V_r$	5	V
D.C. Forward Current*	$I_f$	350	mA
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 $^\circ\text{C}$ for 10sec. Hand Soldering: 350 $^\circ\text{C}$ for 3sec.	
Electric Static Discharge Threshold (HBM)*	ESD	300	V

\* The values are based on 1 die performance.

# 5W High Power LED



## Electrical & Optical Characteristics

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Flux		IF=1,050mA	250	300		lm
	Rank L1		250		300	
	Rank L2		300		350	
Forward Voltage		IF=1,050m		6.5		V
	Rank V1		6		6.5	
	Rank V2		5.51		7	
Correlated Colour Temperature	CCT	IF=1,050mA	2,875	3,000		K
CIE Chromaticity Coordinates: X Axis	X	IF=1,050mA		0.4338		
CIE Chromaticity Coordinates: Y Axis	Y	IF=1,050mA		0.4030		
Reverse Current	IR	Vr=5V			50	μA
Colour Rendering Index	CRI	IF=1,050mA		74		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)

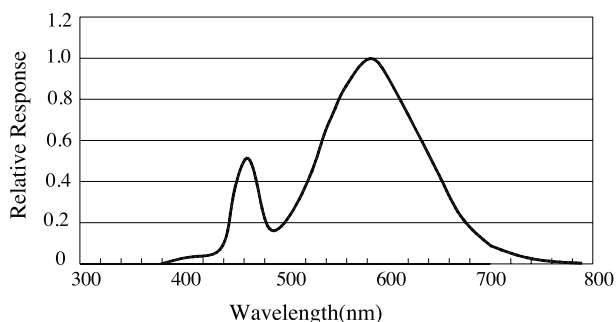
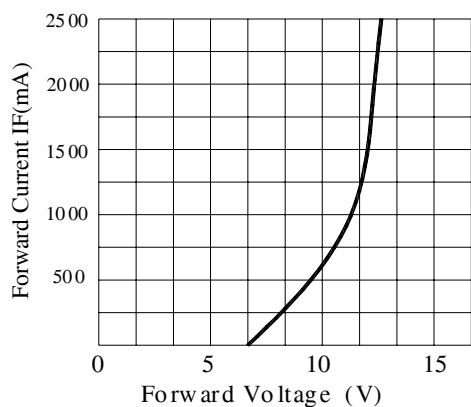
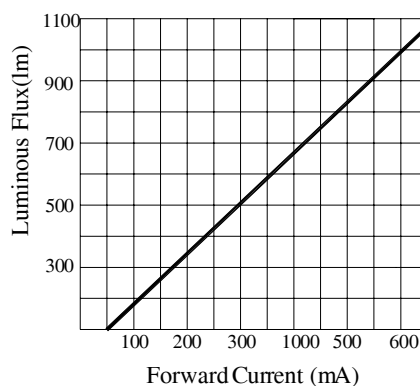


Fig.1 WARM WHITE LED Spectrum VS. WAVELENGTH

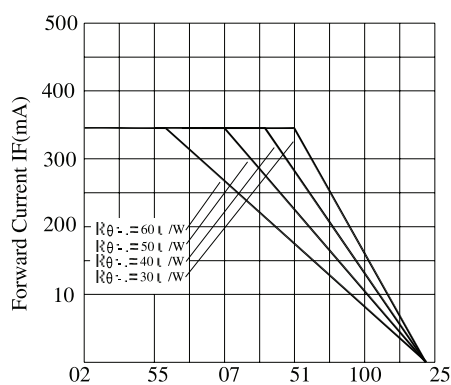
# 5W High Power LED



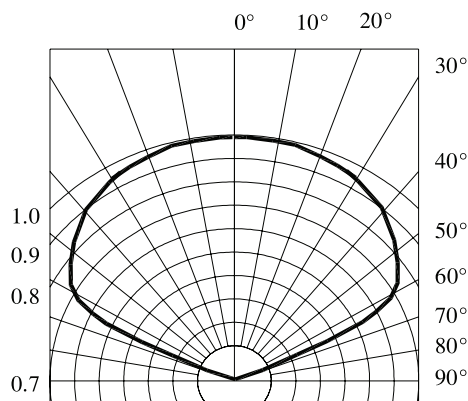
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Flux



Ambient Temperature VS. Forward Current



Radiation Diagram

## Chromaticity Coordinates Specifications for Bin Grading:

Bin	Rank				
	X	Y	Z	u	v
7A	X	0.4147	0.4221	0.4342	0.4259
	Y	0.3814	0.3984	0.4028	0.3853
7B	X	0.4221	0.4299	0.4430	0.4342
	Y	0.3984	0.4165	0.4212	0.4028
7C	X	0.4342	0.4430	0.4562	0.4465
	Y	0.4028	0.4212	0.4260	0.4071
7D	X	0.4259	0.4342	0.4465	0.4373
	Y	0.3853	0.4028	0.4071	0.3893

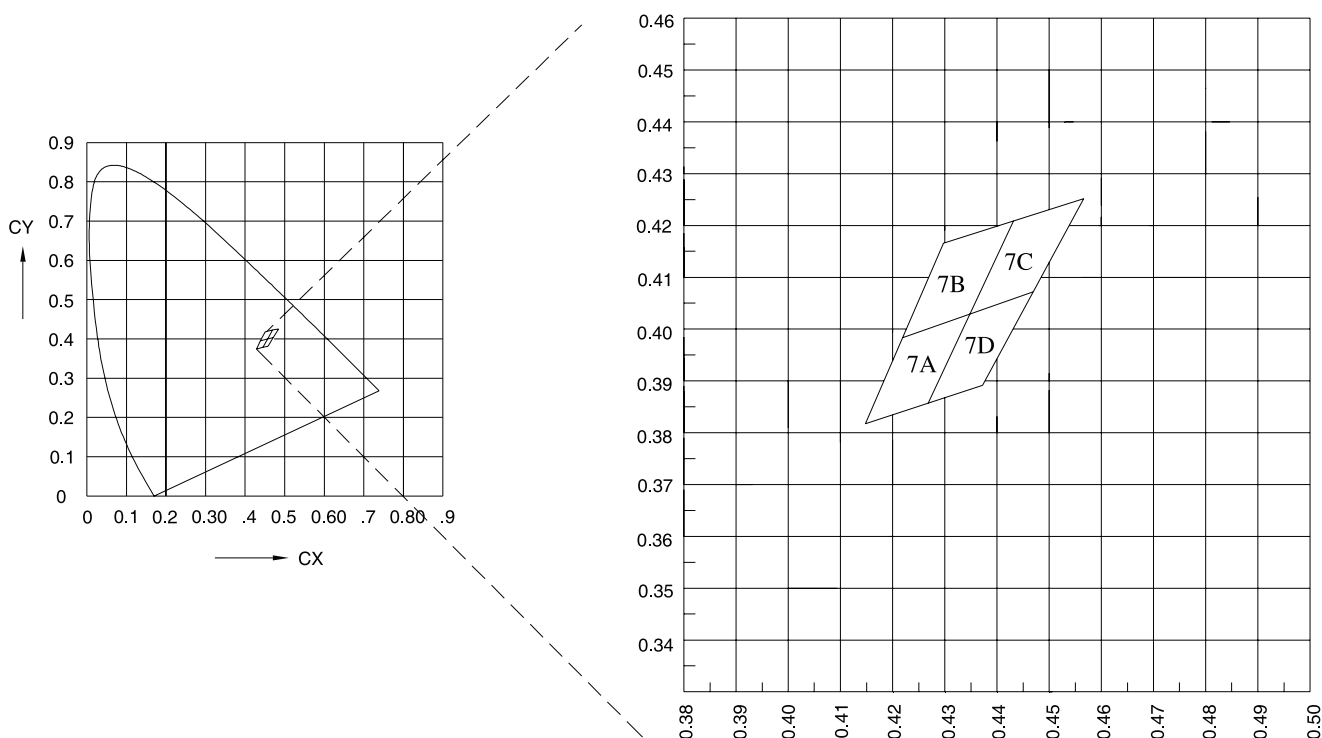
Note: X, Y

Tolerance each Bin limit is  $\pm 0.01$

# 5W High Power LED



## Chromaticity Coordinates & Bin Grading Diagram:



## Part Number Table

LED Chip		Lens Colour	Part Number
Material	Colour Coordinates		
InGaN/Sapphire	Warm white	Yellow diffused	703-0117

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