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# SPECIFICATION

*PART NO. : LPCH6R-8N4R-S02*

**HIGH POWER LED**



Approved by

Checked by

Prepared by

王方波

蘇智良

顏保宏



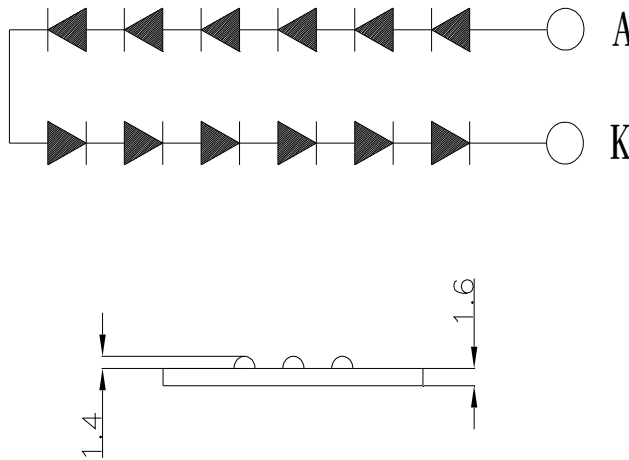
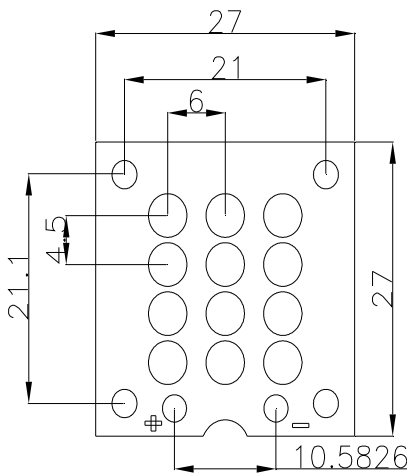
< **Features** >

- \*Excellent Transiting Heat from LED Chip Operating under 350mA
- \*High Luminous Output
- \*No UV

< **Typical Applications** >

- \*Reading Lights
- \*Portable Flashlight
- \*Uplighters and Downlighters
- \*Garden lighting
- \*LCD Backlights/Light Guides
- \*General Lighting

**Package Dimensions**



(UNIT: mm)

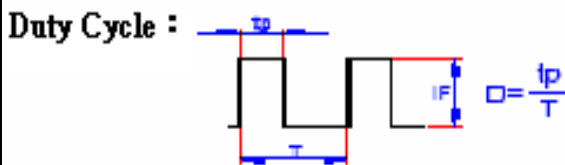
\* All dimensions are in mm. \*Tolerance : +/-0.5mm.

**Description**

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LPCH6R-8N4R-S02	InGaAlN/Metal	Warm white	Water clear

Absolute Maximum Ratings at Ta=25°C :

Parameter	Rating	Unit
Power Dissipation	12250	mW
LED Junction Temperature	120	°C
Reverse Voltage	5	V
D.C. Forward Current	350	mA
Pulsed Forward Current ; $t_p \leq 100\mu s, \text{Duty cycle} = 0.005$ * 1	700	mA
Operating Temperature Range	-40 to +75	°C
Storage Temperature Range	-40 to +100	°C
Soldering Temperature	Reflow Soldering: 260°C for 10 sec. Hand Soldering: 350°C for 3 sec.	



**Notes:**

- 1 · Proper current derating must be observed to maintain junction temperature below the maximum .
- 2 · All products not sensitive to ESD damage(6000 Volts by HBM condition).
- 3 · 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.
- 4 · For best results the customer needs to provide proper control of the thermal path ,protect against electrical overstress conditions, and ensure that Ledtech emitters are properly attached to the mcpcb/heat sink.
- 5 · It is strongly recommended that the temperature of lead does not exceed 55°C.
- 6 · It is strongly recommended to apply on electrically isolated heat conducting film between the slug and contact surfaces.

**Electrical and Optical Characteristics:**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Luminous Flux	$\Phi_v$	IF=350mA	800	950		lm
Efficiency	$\eta$	IF=350mA		80		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	30	--	35	V
Correlated Colour Temperature	CCT	IF=350mA		2750		K
Thermal Resistance Junction to Case	$R\theta_{J-C}$	IF=350mA	--	9	--	$^{\circ}\text{C}/\text{W}$
Reverse Current	$I_R$	$V_r=5\text{V}$	--	--	50	$\mu\text{A}$
Viewing angle at 50% IV	$2\theta_{1/2}$	IF=350mA	--	120	--	Deg.

Notes : 1.The datas tested by IS tester.

2. Customer's special requirements are also welcome.

**Typical Electrical/Optical Characteristic Curves**  
 (25°C Ambient Temperature Unless Otherwise Noted)

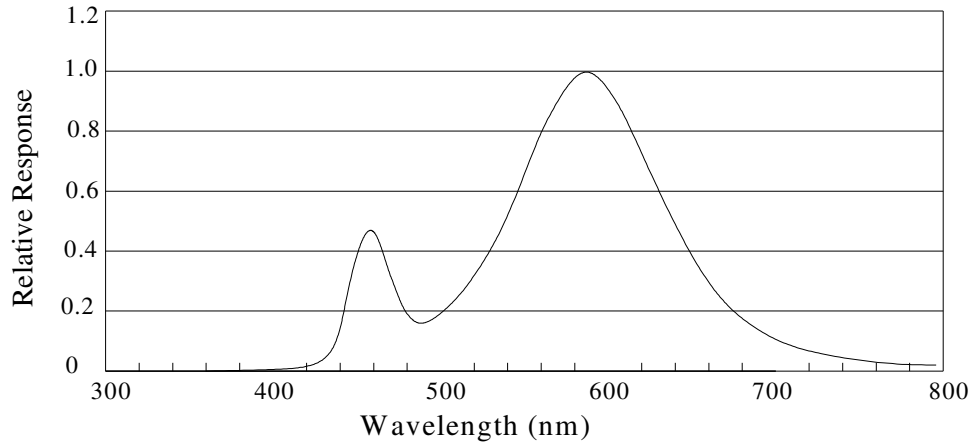
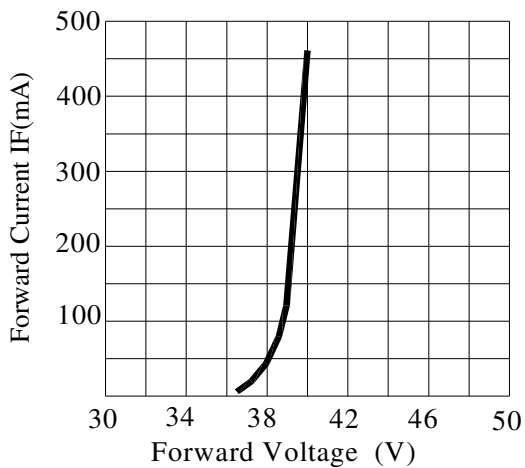
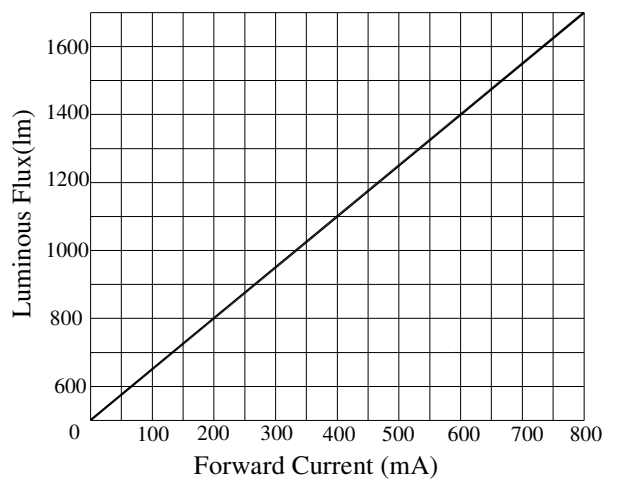


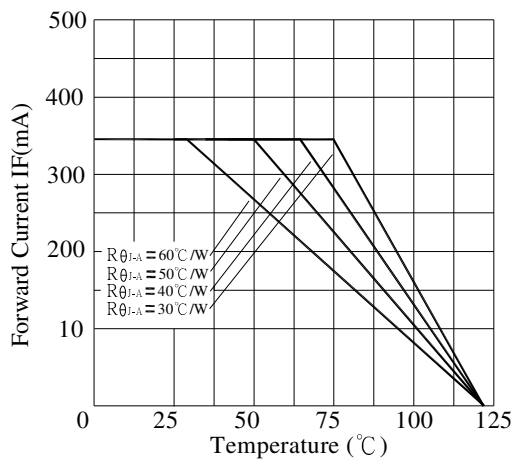
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



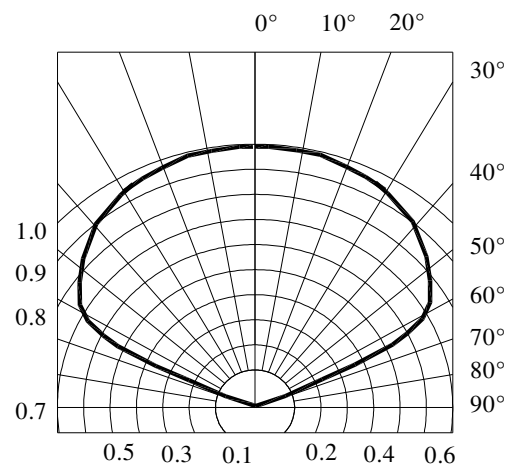
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Flux



Ambient Temperature VS. Forward Current



Radiation Diagram

### Chromaticity Coordinates Specifications for Bin Grading:

COLOR RANKS (IF=20mA.Ta=25°C)

BIN	RANK				
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:

