

## High Power LED lamp

**BL-HP20AxxxL-3W**

### ■ Features:


- 1W and 3W, 5W LEDs suitable for illumination lamps and decorative lighting
- Longer service and less luminosity loss, 50,000hours
- Different emitting colors are available
- Working current: 200-350mA, 700mA, 1050mA
- With or without heat sink are both available
- Lambertian, batwing and side emitting are all available
- Light output from 20 to 170 lumens

### ■ Applications:

Commercial lighting  
 Residential lighting  
 Decorative lighting

**3Watt Lambertian**

### ■ Electrical-optical characteristics: (Ta=25°C) (Test Condition: IF=700mA)

3W Star Lambertian type  Part Number	Chip		Lens Type	Forward Voltage(VF) Unit:V		Flux Unit:lm @700mA		Viewing Angle 2θ/2 (deg)
	Emitted Color	λ <sub>p</sub> (nm) or CTT		Typ	Max	Min.	Typ.	
<b>BL-HP20AUECL-3W</b>	Ultra Orange	630	Water Clear	2.2	2.75	40	50	140
<b>BL-HP20AUYCL-3W</b>	Ultra Yellow	590		2.2	2.75	50	55	
<b>BL-HP20APGCL-3W</b>	Ultra Pure Green	525		3.5	3.8	70	90	
<b>BL-HP20ABGCL-3W</b>	Ultra Bluish Green	505		3.5	3.8	70	90	
<b>BL-HP20AUBCL-3W</b>	Ultra Blue	470		3.5	3.8	15	20	
<b>BL-HP20AUWCL-3W</b>	Ultra White	6000k		3.5	3.8	50	60	
<b>BL-HP20AUW2CL-3W</b>	Ultra Warm White	3200k		3.5	3.8	40	50	

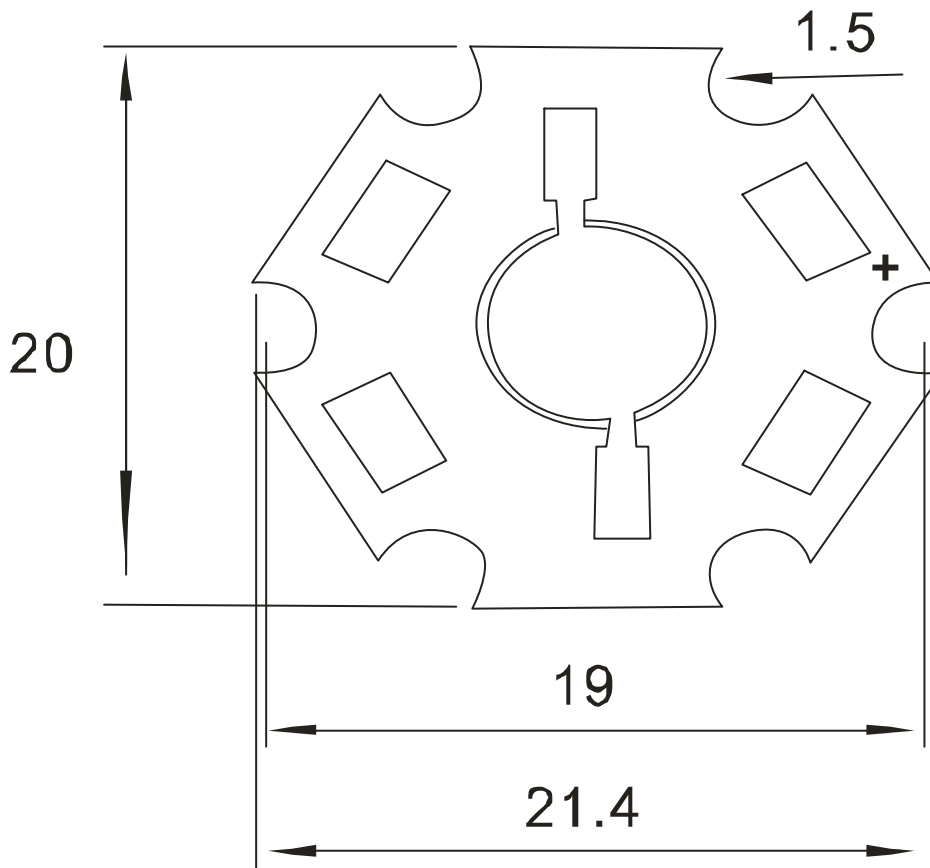
### ■ Absolute maximum ratings (Ta=25°C)

Parameter	UE	UY	BG	PG	UB	UW	Unit
Forward Current I <sub>F</sub>	30	30	30	30	30	30	mA
Power Dissipation P <sub>d</sub>	65	65	110	110	120	120	mW
Reverse Voltage V <sub>R</sub>	5	5	5	5	5	5	V
Peak Forward Current I <sub>PF</sub> (Duty 1/10 @1KHZ)	150	150	150	150	100	100	mA
Operation Temperature T <sub>OPR</sub>	-40 to +80						
Storage Temperature T <sub>STG</sub>	-40 to +85						
Lead Soldering Temperature T <sub>SOL</sub>	Max.260±5 for 3 sec Max. (1.6mm from the base of the epoxy bulb)						

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Package configuration & Internal circuit diagram



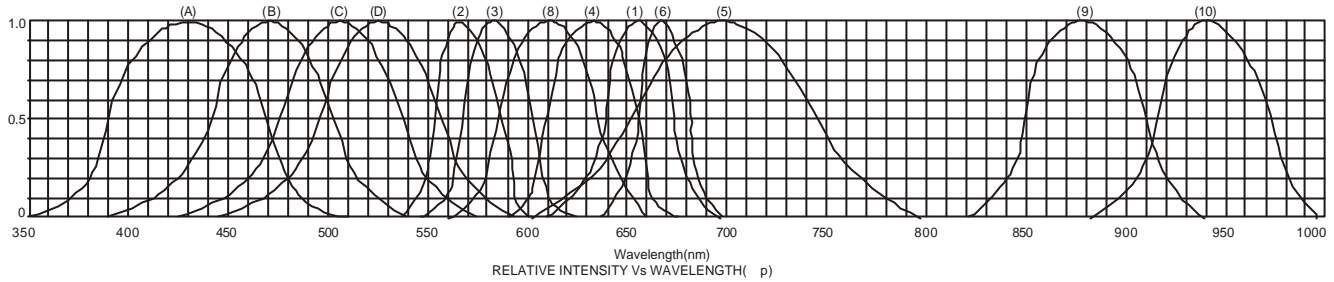
Notes:

1. All dimensions are in millimeters (inches)
2. Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.
3. Specifications are subject to change without notice.

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### Typical electrical-optical characteristics curves:



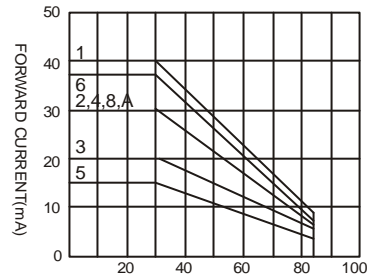
- |   |                                      |
|---|--------------------------------------|
| (1) - GaAsP/GaAs 655nm/Red                | (9) - GaAlAs 880nm                   |
| (2) - GaP 570nm/Yellow Green              | (10) - GaAs/GaAs & GaAlAs/GaAs 940nm |
| (3) - GaAsP/GaP 585nm/Yellow              | (A) - GaN/SiC 430nm/Blue             |
| (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red | (B) - InGaN/SiC 470nm/Blue           |
| (5) - GaP 700nm/Bright Red                | (C) - InGaN/SiC 505nm/Ultra Green    |
| (6) - GaAlAs/GaAs 660nm/Super Red         | (D) - InGaAl/SiC 525nm/Ultra Green   |
| (8) - GaAsP/GaP 610nm/Super Red           |                                      |



FORWARD VOLTAGE (Vf)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



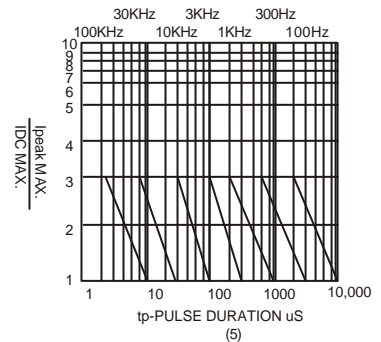
AMBIENT TEMPERATURE Ta( )  
FORWARD CURRENT VS. AMBIENT  
TEMPERATURE



AMBIENT TEMPERATURE Ta( )



tp-PULSE DURATION μS  
(1,2,3,4,6,8,B,D,J,K)



(5)

NOTE:25 free air temperature unless otherwise specified