

## 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 with 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.	
BL-HP20AUECL-3W	Ultra Orange	630	Water Clear	2.2	2.75	40	50	140
BL-HP20AUYCL-3W	Ultra Yellow	590		2.2	2.75	50	55	
BL-HP20APGCL-3W	Ultra Pure Green	525		3.5	3.8	70	90	
BL-HP20ABGCL-3W	Ultra Bluish Green	505		3.5	3.8	70	90	
BL-HP20AUBCL-3W	Ultra Blue	470		3.5	3.8	15	20	
BL-HP20AUWCL-3W	Ultra White	6000k		3.5	3.8	50	60	
BL-HP20AUW2CL-3W	Ultra Warm White	3200k		3.5	3.8	40	50	

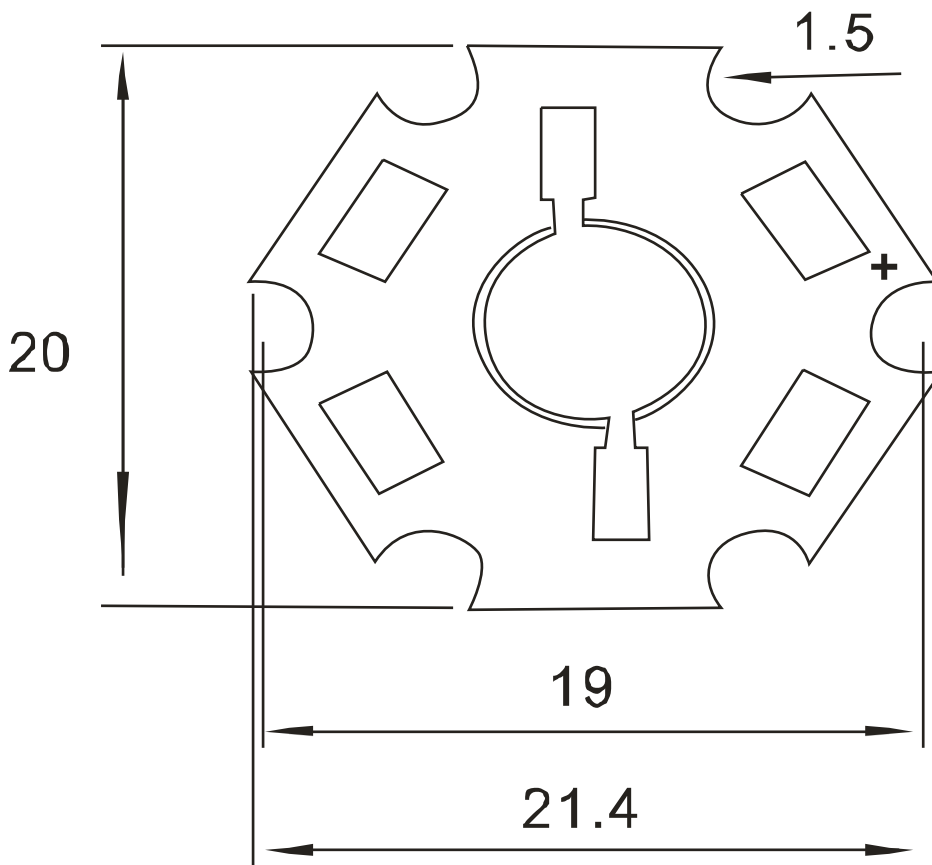
### Absolute maximum ratings (Ta=25°C)

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						°C
Storage Temperature T <sub>STG</sub>	-40 to +85						°C
Lead Soldering Temperature T <sub>SOL</sub>	Max.260±5°C for 3 sec Max. (1.6mm from the base of the epoxy bulb)						°C

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**Package configuration & Internal circuit diagram**



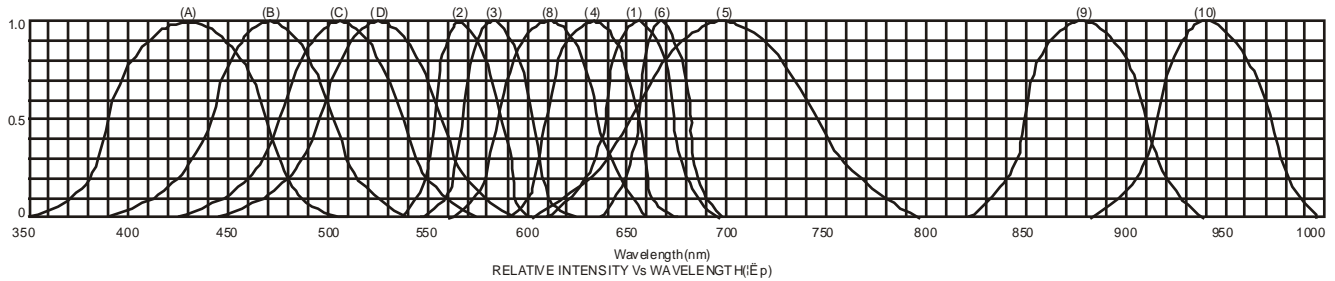
**Notes:**

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

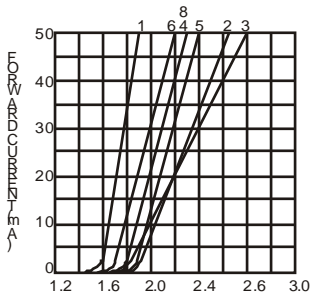
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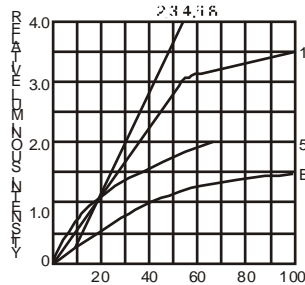
### Typical electrical-optical characteristics curves:



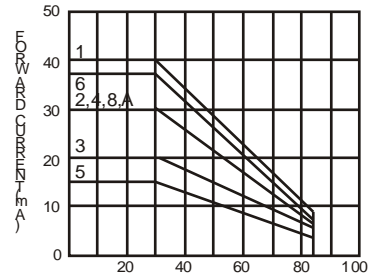
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



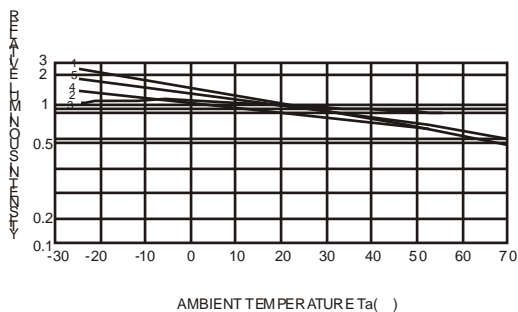
FORWARD VOLTAGE (Vf)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



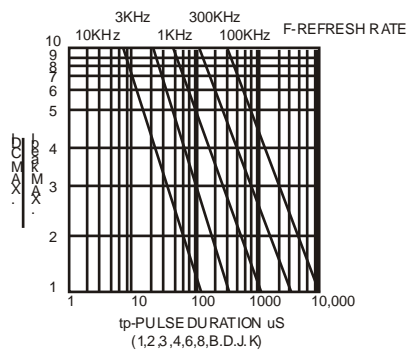
FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



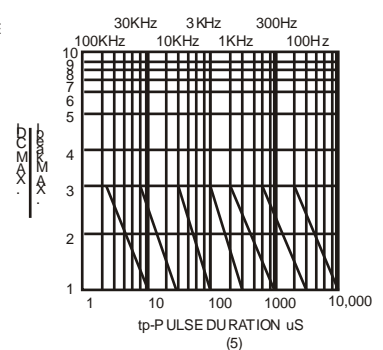
AMBIENT TEMPERATURE Ta( °C)  
FORWARD CURRENT VS. AMBIENT  
TEMPERATURE



AMBIENT TEMPERATURE Ta( °C)



tp-PULSE DURATION  $\mu$ S  
(1,2,3,4,6,8,B,D,J,K)



(5)

NOTE: 25 °C free air temperature unless otherwise specified