

## High Power LED

BL-HP20AxxxS

### Features:

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


### Applications :

Commercial lighting  
Residential lighting  
Decorative lighting



### 1Watt Side Emitting

**Electrical-optical characteristics: (Ta=25°C)** (Test Condition: IF=350mA)

1W Star with Side emitting type 	Chip		Lens Type	Forward Voltage(VF) Unit:V		Flux Unit:lm @350mA		Viewing Angle 2θ/2 (deg)
	Emitted Color	λp (nm) or CTT		Typ	Max	Min.	Typ.	
Part Number								
<b>BL-HP20AU ECS</b>	Ultra Orange	630	Water Clear	2.2	2.75	35	45	160
<b>BL-HP20AU YCS</b>	Ultra Yellow	590		2.2	2.75	35	45	
<b>BL-HP20AP GCS</b>	Ultra Pure Green	525		3.2	3.8	50	60	
<b>BL-HP20AB GCS</b>	Ultra Bluish Green	505		3.2	3.8	40	50	
<b>BL-HP20AU BCS</b>	Ultra Blue	470		3.2	3.8	10	15	
<b>BL-HP20AU WCS</b>	Ultra White	6000k		3.2	3.8	70	90	
<b>BL-HP20AU W2CS</b>	Ultra Warm White	3200k		3.2	3.8	50	70	

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

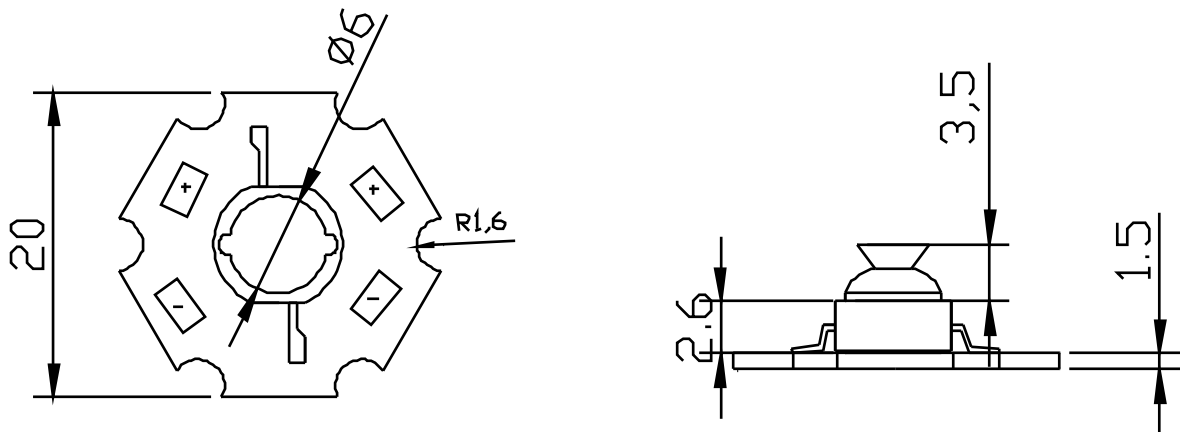
Parameter	UE	UY	BG	PG	UB	UW	Unit
Forward Current I <sub>F</sub>	350	350	350	350	350	350	mA
LED Junction Temperature	120	120	120	120	120	120	°C
Peak Forward Current I <sub>PF</sub> (Duty 1/10 @1KHZ)	500	500	500	500	500	500	mA
Operation Temperature T <sub>OPR</sub>	-40 to +80						°C
Storage Temperature T <sub>STG</sub>	-40 to +85						°C
Aluminum-Core Pcb Temperature	105						°C

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### Package configuration & Internal circuit diagram

BL-HP20AxxxS Side emitting Series



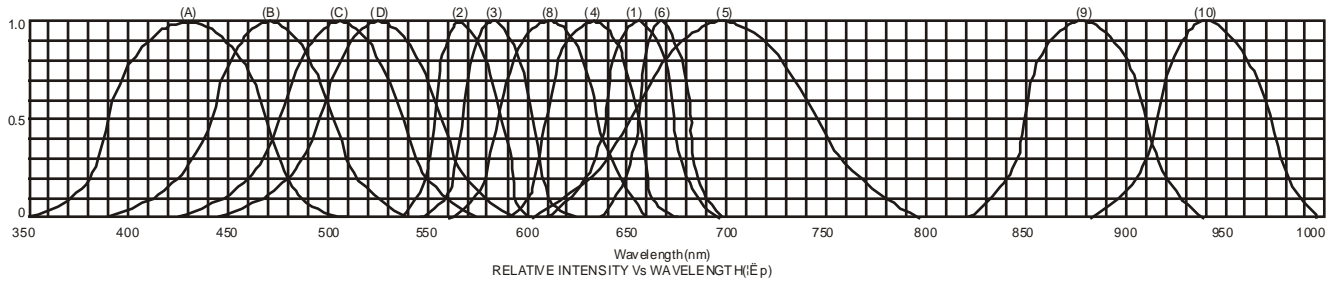
#### Notes:

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.

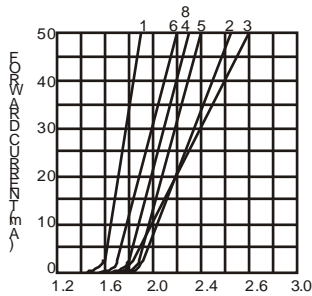
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**BL-HP20AxxxS**

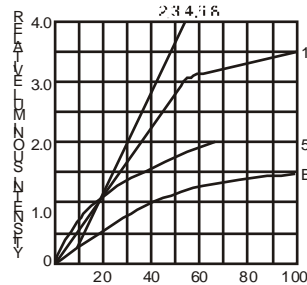
## Typical electrical-optical characteristics curves:



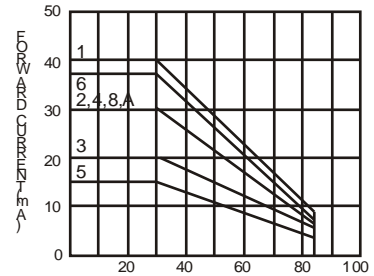
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



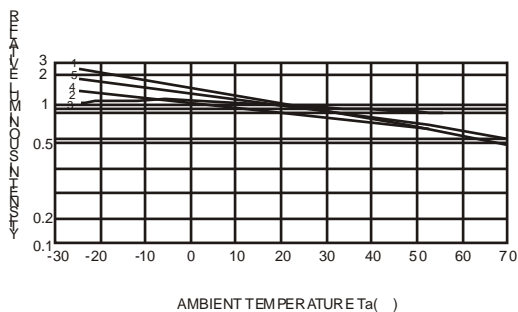
FORWARD VOLTAGE (Vf)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



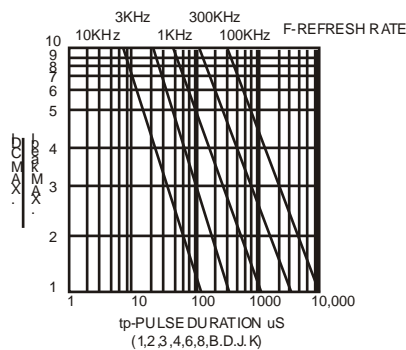
FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



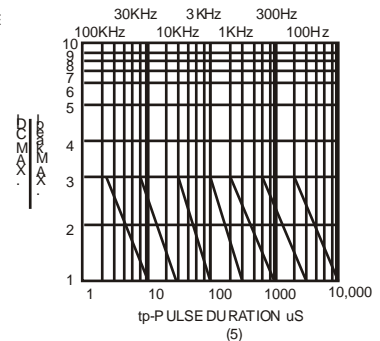
AMBIENT TEMPERATURE Ta ( )  
FORWARD CURRENT VS. AMBIENT  
TEMPERATURE



AMBIENT TEMPERATURE Ta ( )



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



(5)

NOTE: 25 free air temperature unless otherwise specified

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Packing and weighting

