High Power LED

BL-HP20AxxxL

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

1Watt Lambertian

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

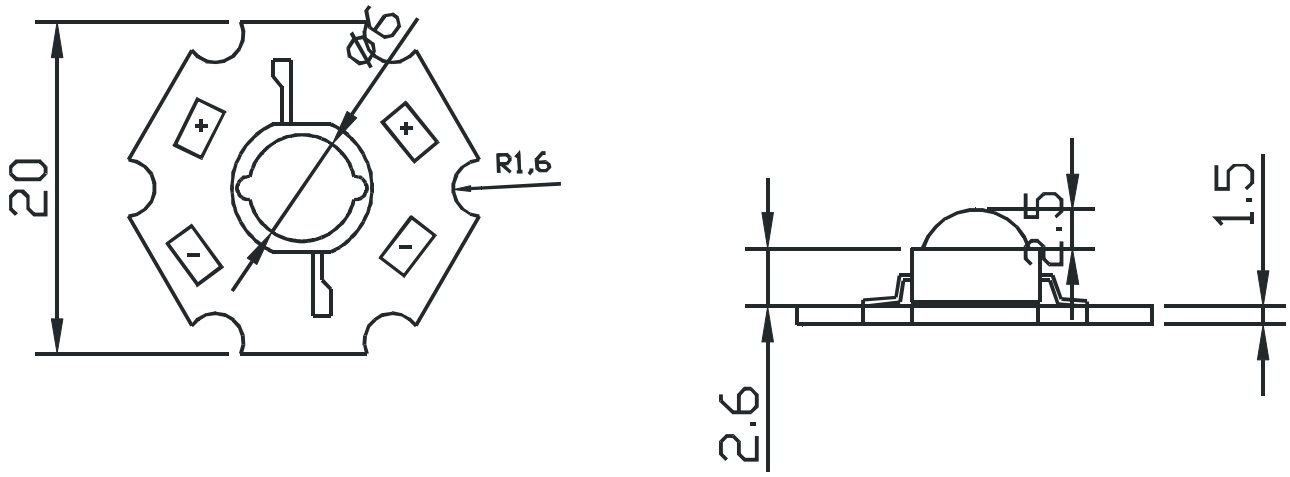
1W Star with Lambertian type  Part Number	Chip		Lens Type	Forward Voltage(VF) Unit:V		Flux Unit:lm @350mA		Viewing Angle 2?1/2 (deg)
	Emitted Color	l_P (nm) or CTT		Typ	Max	Min.	Typ.	
BL-HP20AUECL	Ultra Orange	630	Water Clear	2.2	2.75	35	45	140
BL-HP20AUYCL	Ultra Yellow	590		2.2	2.75	35	45	
BL-HP20APGCL	Ultra Pure Green	525		3.2	3.8	50	60	
BL-HP20ABGCL	Ultra Bluish Green	505		3.2	3.8	40	50	
BL-HP20AUBCL	Ultra Blue	470		3.2	3.8	10	15	
BL-HP20AUWCL	Ultra White	6000k		3.2	3.8	70	90	
BL-HP20AUW2CL	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_F	350	350	350	350	350	350	mA
LED Junction Temperature	120	120	120	120	120	120	°C
Peak Forward Current I_{PF} (Duty 1/10 @1KHZ)	500	500	500	500	500	500	mA
Operation Temperature T_{OPR}	-40 to +80						°C
Storage Temperature T_{STG}	-40 to +85						°C
Aluminum-Core Pcb Temperature	105						°C

■ Package configuration & Internal circuit diagram

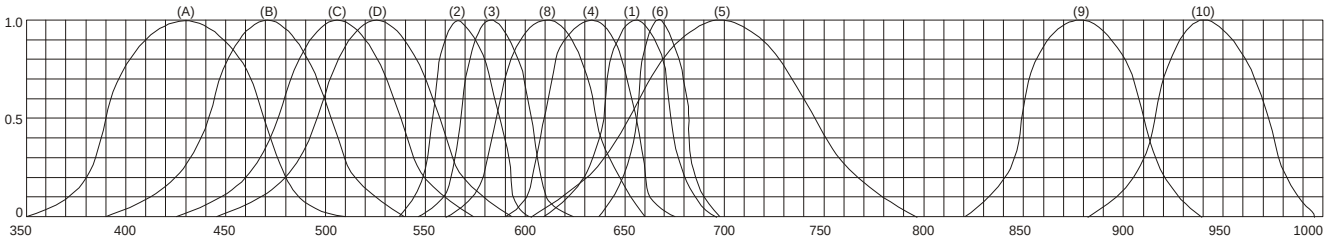
BL-HP20A Series



Notes:

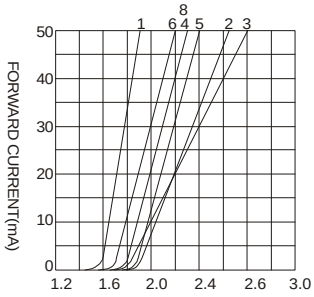
1. All dimensions are in millimeters (inches)
2. Tolerance is ±0.25(0.01")unless otherwise noted.
3. Specifications are subject to change without notice.

■ Typical electrical-optical characteristics curves:

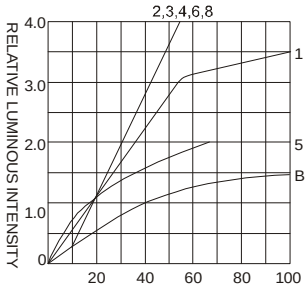


RELATIVE INTENSITY Vs WAVELENGTH(? p)

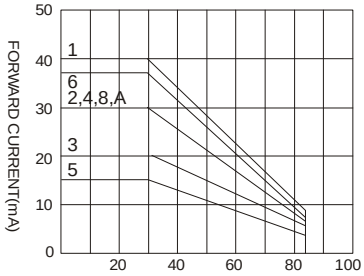
(1) - GaAsP/GaAs 655nm/Red
(2) - GaP 570nm/Yellow Green
(3) - GaAsP/GaP 585nm/Yellow
(4) - GaAsp/GaP 635nm/Orange & Hi-Eff Red
(5) - GaP 700nm/Bright Red
(6) - GaAlAs/GaAs 660nm/Super Red
(8) - GaAsP/GaP 610nm/Super Red
(9) - GaAlAs 880nm
(10) - GaAs/GaAs & GaAlAs/GaAs 940nm
(A) - GaN/SiC 430nm/Blue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



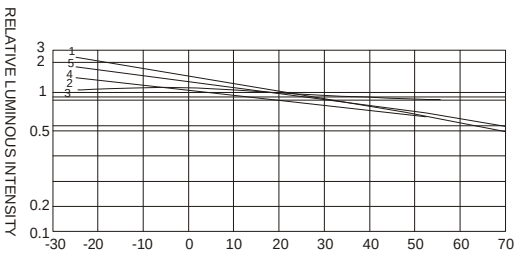
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS. FORWARD VOLTAGE



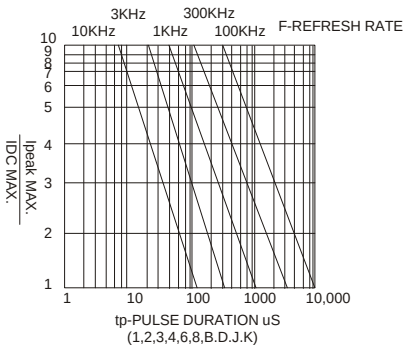
FORWARD CURRENT (mA)
RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



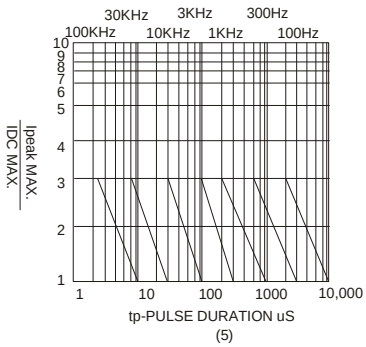
AMBIENT TEMPERATURE Ta(℃)
FORWARD CURRENT VS. AMBIENT TEMPERATURE



AMBIENT TEMPERATURE Ta(℃)



(1,2,3,4,6,8,B.D.J.K)



(5)

NOTE:25℃ free air temperature unless otherwise specified