

## High Power LED

BL-LS5050B1S1XX-1W

### ■ Features:

- 1W LEDs , 5.0mmx5.0mm SMD, 1.8mm THICKNESS SOP6 package
- Longer service and less luminosity loss, 50,000hours
- Different emitting colors are available Working current: 200-350mA
- With or without heat sink are both available
- PACKAGE: 500PCS/REEL

### ■ Applications:

Commercial lighting  
Residential lighting  
Decorative lighting



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

Part Number	Chip		Lens Type	Forward Voltage(VF) Unit:V		Flux Unit:lm		Viewing Angle 201/2 (deg)
	Emitted Color	$\lambda_P$ (nm) or CTT		Typ	Max	Min.	Typ.	
				BL-LS5050B1S1UEC-1W	Ultra Red	630	2.2	
BL-LS5050B1S1UYC-1W	Ultra Yellow	590	2.2	2.75	35	45		
BL-LS5050B1S1PGC-1W	Ultra Pure Green	525	3.2	3.8	50	60		
BL-LS5050B1S1BGC-1W	Ultra Bluish Green	505	3.2	3.8	40	50		
BL-LS5050B1S1UBC-1W	Ultra Blue	470	3.2	3.8	10	15		
BL-LS5050B1S1UWC-1W	Ultra White	-	3.2	3.8	90	100		

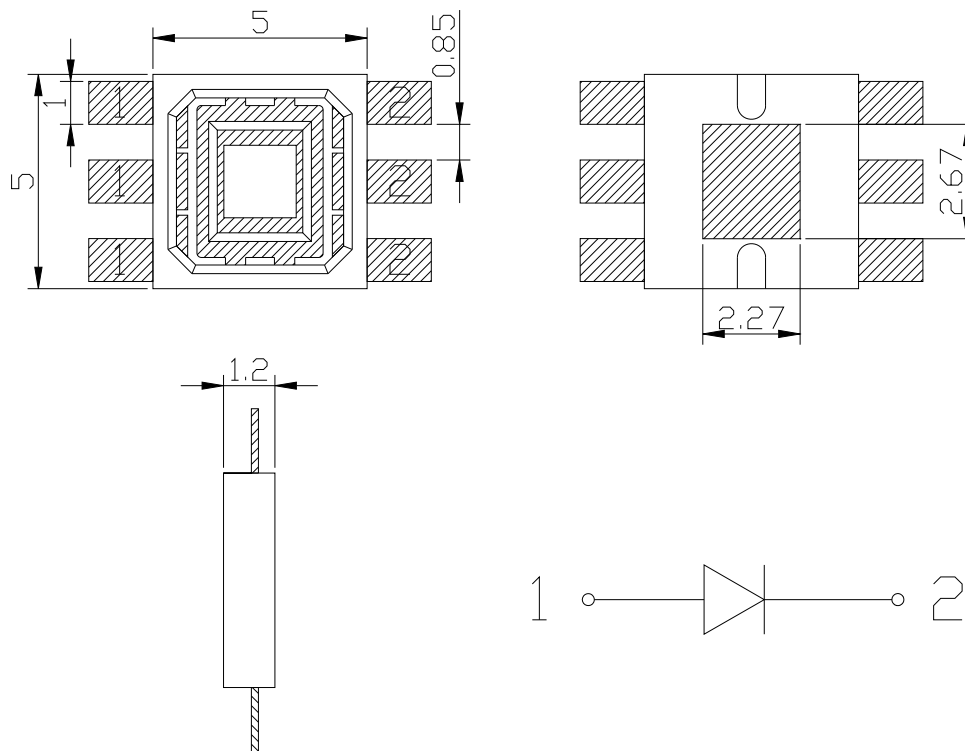
### ■ Absolute maximum ratings (Ta=25°C)

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 +100						°C
Aluminum-Core Pcb Temperature	105						°C

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### ■ Package configuration & Internal circuit diagram



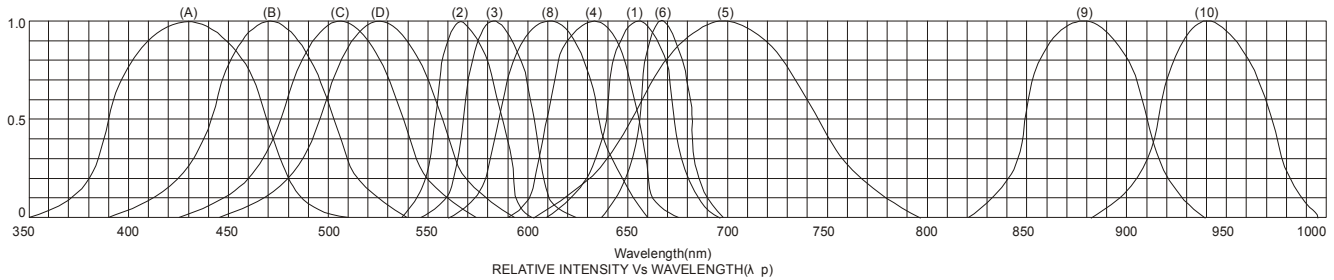
#### Notes:

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.

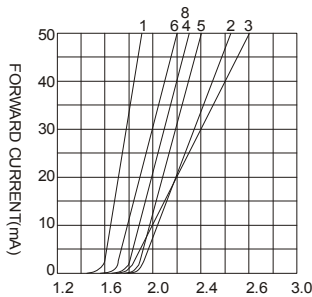
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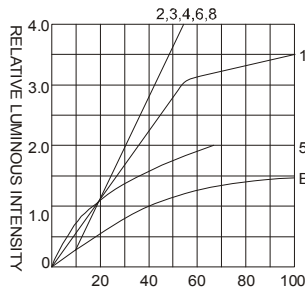
## Typical electrical-optical characteristics curves:



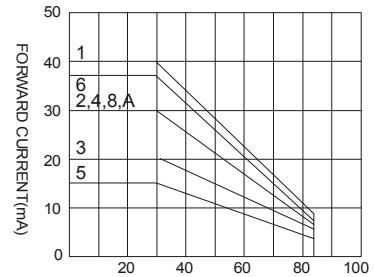
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



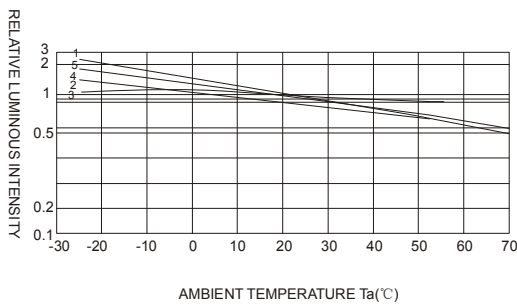
FORWARD VOLTAGE (Vf)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



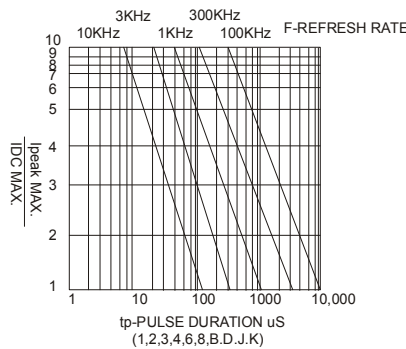
FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



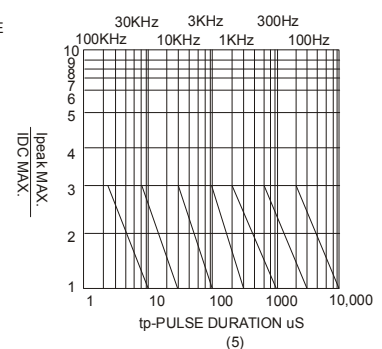
AMBIENT TEMPERATURE Ta(°C)  
FORWARD CURRENT VS. AMBIENT  
TEMPERATURE



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

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■ **Packing and weighting**

