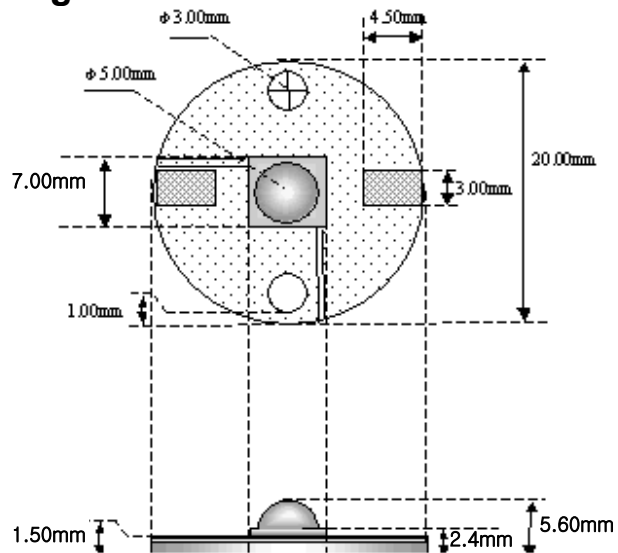


## BriLux 1W Light Source

### BTP-51XXCR-XX-XX



#### Package Dimension



#### Features

- Highest Lumen Per Watt
- Long Operational Life
- More Energy Efficient
- IC Compatible
- Low DC Voltage
- Superior ESD Protection
- Smallest Footprint

#### Applications

- Accent Lighting
- Automotive Exterior/Interior Light
- High Power Back Light
- Reading Light
- Marine/Miner's Lighting
- Portable Lighting

#### Optical Characteristics at $T_j=25^{\circ}\text{C}$

PART NUMBER	LED CHIP	Lens Color	Wavelength/CCT	Drive Voltage	Luminous Flux	VIEW ANGLE
	MATERIAL		Range (nm/K)	Typ.	@350mA(1m)	$2\theta_{1/2}$ (deg)
			Min/Max		Typ.	
BTP-51NRCR-XX-15	AllnGaP	Water Clear	620~635	2.85V	15 lm	15
BTP-51AMCR-XX-15	AllnGaP	Water Clear	600~620	2.85V	15 lm	15
BTP-51YECR-XX-15	AllnGaP	Water Clear	585~595	2.85V	15 lm	15
BTP-51DBCR-XX-05	AllnGaN	Water Clear	450~460	3.50V	5 lm	15
BTP-51BLCR-XX-06	AllnGaN	Water Clear	460~475	3.50V	6 lm	15
BTP-51GBCR-XX-08	AllnGaN	Water Clear	475~485	3.50V	8 lm	15
BTP-51BGCR-XX-15	AllnGaN	Water Clear	495~510	3.50V	15 lm	15
BTP-51GMCR-XX-20	AllnGaN	Water Clear	510~520	3.50V	20 lm	15
BTP-51PGCR-XX-25	AllnGaN	Water Clear	520~525	3.50V	25 lm	15
BTP-51WHCR-XX-20	AllnGaN	Water Clear	5000K~8000K	3.60V	20 lm	15

### Absolute Maximum Ratings at $T_j=25^{\circ}\text{C}$

Parameter	White/Green/Cyan/Blue	Red/Amber/Yellow
DC Forward Current (mA) <sup>[1]</sup>	350	350
Peak Pulsed Forward Current (mA)	500	500
Average Forward Current (mA)	350	350
Reverse Voltage (V)	5	5
Reverse Current (uA)	10	10
LED Junction Temperature ( $^{\circ}\text{C}$ )	120	120
AI-PCB Temperature ( $^{\circ}\text{C}$ ) <sup>[3]</sup>	100	100
Storage Temperature ( $^{\circ}\text{C}$ )	-40 to +100	-40 to +100
Soldering Temperature ( $^{\circ}\text{C}$ ) <sup>[4]</sup>	260 for 5 seconds max	260 for 5 seconds max

#### Application Notes:

1. Proper forward current must be observed to maintain the junction temperature below maximum rating
2. Although all products listed are class one ESD protection (+/- 1KV by HBM mode), care must be fully taken when handling products
3. Measured at back of aluminium PCB without additional heat sink. We recommend mounting BriLux light source directly to heat sink with fasteners for best performance.
4. Measured at contact terminals.
5. Specification is subjected to change without notice.



#### WARNING

This range of LEDs is produced with die having a high radiant flux. Care must be taken when viewing the product at close range as the light may be intense enough to cause damage to the human eye.

**Note:** Industry standard procedures regarding static must be observed when handling this product.

Typical Electro-Optical Characteristics Curves at  $T_j=25^\circ\text{C}$   
 (Red/Yellow/Blue/Green)

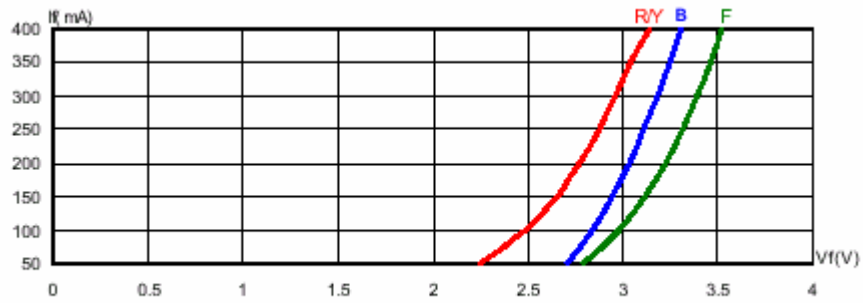


Fig.1 Forward Current vs. Forward Voltage

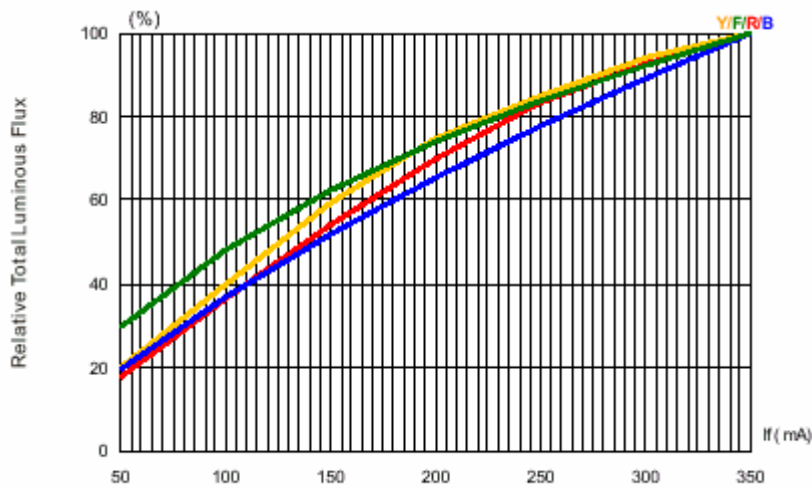
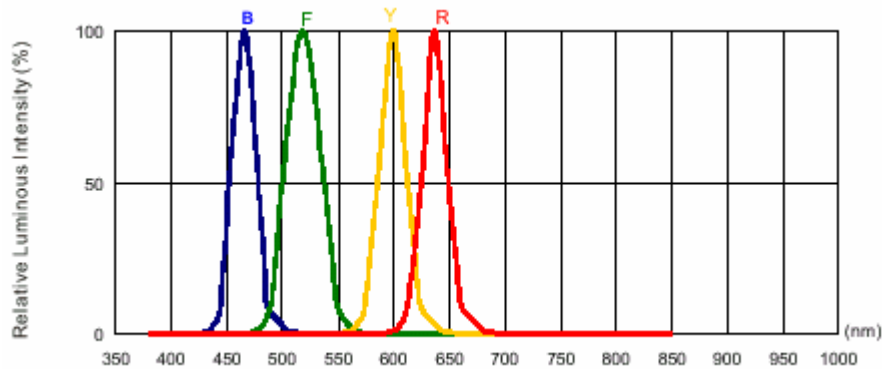


Fig.2 Luminous Flux vs. Forward Current



Typical Electro-Optical Characteristics Curves at  $T_j=25^{\circ}\text{C}$  (White)

**White BriLux**

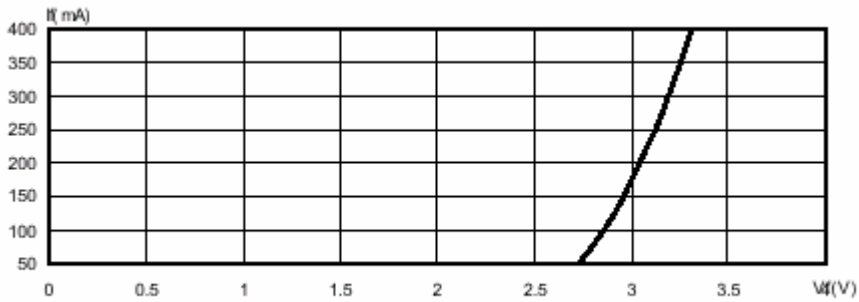


Fig.1 Forward Current vs. Forward Voltage

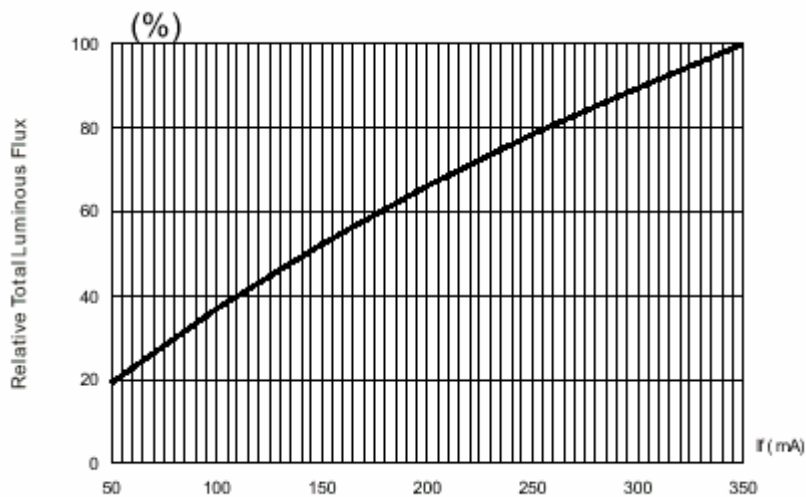


Fig.2 Luminous Flux vs. Forward Current

