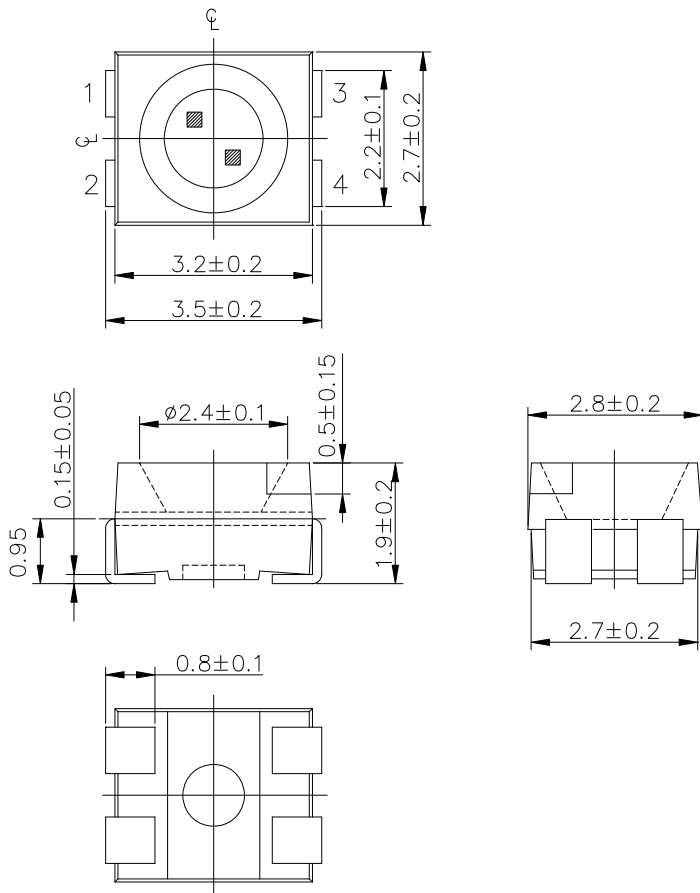


A-BRIGHT A-BRIGHT INDUSTRIAL CO., LTD. SURFACE MOUNT CHIP LED LAMPS

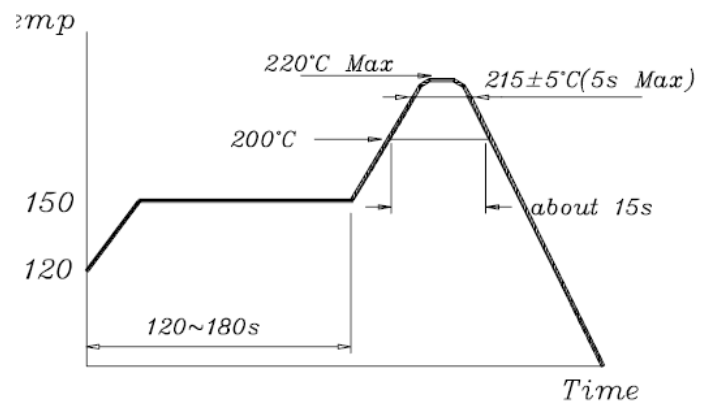
Top View LEDs With Bi-Color

Part Number: 67-22SURSYGC

Package outlines & Re-flow Profile

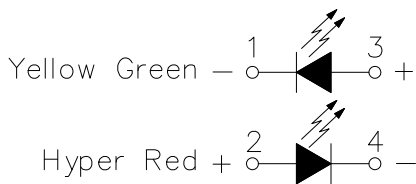


■Reflow Temp/Time

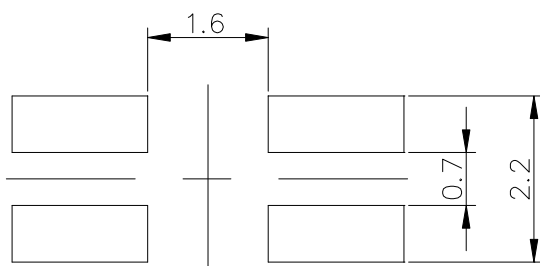


■Soldering iron

Basic spec is $\leq 5\text{sec}$ when 260°C . If temperature is higher, time should be shorter ($+10^\circ\text{C} \rightarrow -1\text{sec}$). Power dissipation of iron should be smaller than 15W, and temperatures should be controllable. Surface temperature of the device should be under 230°C .



For Reflow Soldering



ITEM		MATERIALS	
Resin (mold)		Epoxy	
Lens color		Water Clear	
Printed circuit board		BT	
Material & Emitted color	SUR	AlGaInP	Hyper Red
	SYG	AlGaInP	Super Yellow Green

NOTES:

- All dimensions are in millimeters (inches).
- Tolerances are $\pm 0.1\text{mm}$ (0.004inch) unless otherwise noted.
- Polarity referring onto the cathode mark is reversed on the red.

A-BRIGHT A-BRIGHT INDUSTRIAL CO., LTD. SURFACE MOUNT CHIP LED LAMPS

Part Number: 67-22SURYGC

ELECTRO-OPTICAL CHARACTERISTICS

(T_A=25°C)

Parameter	Emitted Color	Test Condition	Symbol	Value			Unit
				MIN.	TYP.	MAX.	
Forward voltage	SUR	I _F =20mA	V _F	-	2.0	2.4	V
	SYG			-	2.0	2.4	
Luminous intensity	SUR	I _F =20mA	I _v	-	60	-	mcd
	SYG			-	25	-	
Wavelength	SUR	I _F =20mA	λ _p	-	630	-	nm
	SYG			-	575	-	
	SUR	I _F =20mA	λ _d	-	625	-	
	SYG			-	570	-	
Spectral Line Half-Width	SUR	I _F =20mA	Δλ	-	20	-	nm
	SYG			-	20	-	
Peak pulsing current (1/10 duty f=1kHz)	SUR		I _{FP}	160			mA
	SYG			160			
Power Dissipation	SUR		P _D	60			mW
	SYG			60			
Reverse current	SUR	V _R =5V	I _R	10			μA
	SYG						
Electrostatic Discharge	SUR		ESD	2000			mA
	SYG						

Absolute maximum ratings

(T_A=25°C)

Parameter	Symbol	Value	Unit
Viewing angle at 50% I _v	2θ 1/2	120	Deg
Forward current	I _F	20	mA
Reverse voltage	V _R	5	V
Operating temperature range	Top	-40 ~ +85	°C
Storage temperature range	Tstg	-40 ~ +90	°C

A-BRIGHT A-BRIGHT INDUSTRIAL CO., LTD.
SURFACE MOUNT CHIP LED LAMPS

Part Number: 67-22SURSYGC

Test items and results of reliability

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Reflow	TEMP : 240±5°C Min. 5sec.	6 MIN.	22 PCS	0/1
2	Temperature Cycle	H : +100°C 15min ∫ 5min L : -40°C 15min	300 CYCLES	22 PCS	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10set L : -10°C 5min	300 CYCLES	22 PCS	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	22 PCS	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	22 PCS	0/1
6	DC Operating Life	I _F =20mA	1000 HRS	22 PCS	0/1
7	High Temperature / High Humidity	85°C / 85%RH	1000 HRS	22 PCS	0/1

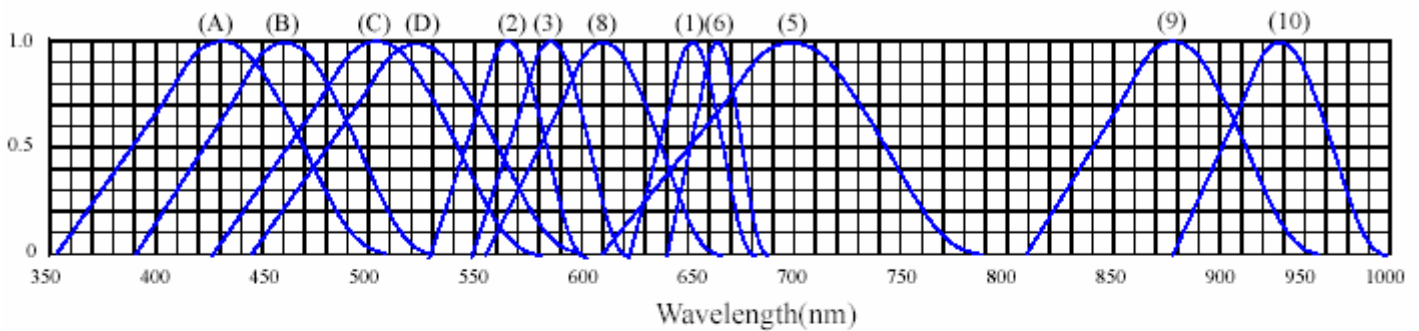
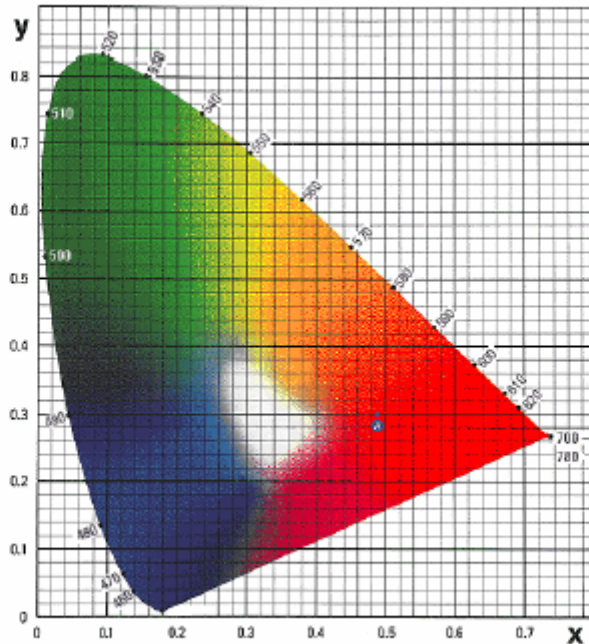
* Refer to reliability test standard specification for in this line.

A-BRIGHT A-BRIGHT INDUSTRIAL CO., LTD. SURFACE MOUNT CHIP LED LAMPS

Part Number: 67-22SURSYGC

Typical Electro-Optical Characteristics

◆ TYPICAL ELECTRICAL-OPTICAL CHARACTERISTICS CURVES



RELATIVE INTENSITY VS. WAVELENGTH(λ_p)

- | | |
|---|----------------------------------|
| (1) GaAsP/GaAs 655nm/Red | (9)- GaAlAs 880nm |
| (2) GaP 568nm/ Yellow Green | (10)-GaAs/GaAs&GaAlAs/GaAs 940nm |
| (3) GaAsP/GaP 585nm/Yellow | (A)- GaN 430nm/Blue |
| (4) GaAsP/GaP 635nm/Orange & Hi-Eff Red | (B)- InGaN 470nm/Blue |
| (5) GaP 700nm/Bright Red | (C)- InGaN 502nm/Ultra Green |
| (6) GaAlAs/GaAs 660nm/Super Red | (D)- InGaN 523nm/Ultra Green |
| (8) GaAsP/GaP 610nm/Super Red | |

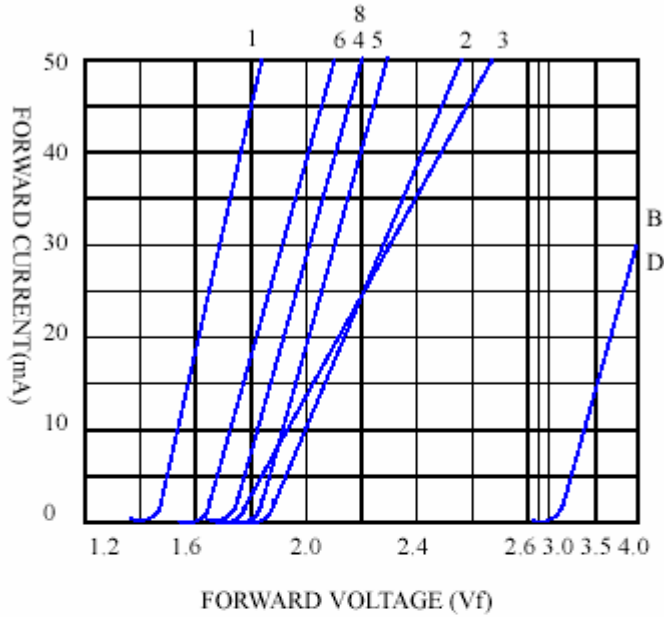
A-BRIGHT A-BRIGHT INDUSTRIAL CO., LTD. SURFACE MOUNT CHIP LED LAMPS

Part Number: 67-22SURSYGC

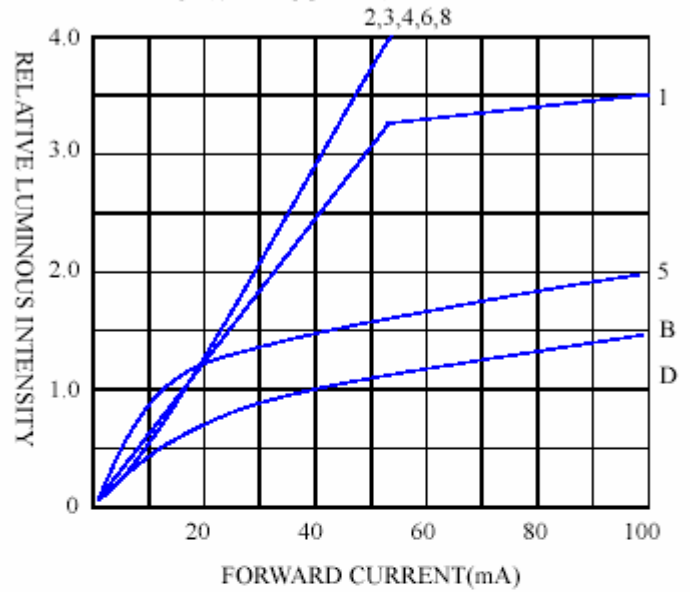
Typical Electro-Optical Characteristics

◆ CHARACTERISTICS DIAGRAMS

FORWARD CURRENT VS. FORWARD VOLTAGE



RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



FORWARD CURRENT VS. AMBIENT TEMPERATURE

