

Everlight News 03.07.2023

www.everlight.com

EVERLIGHT

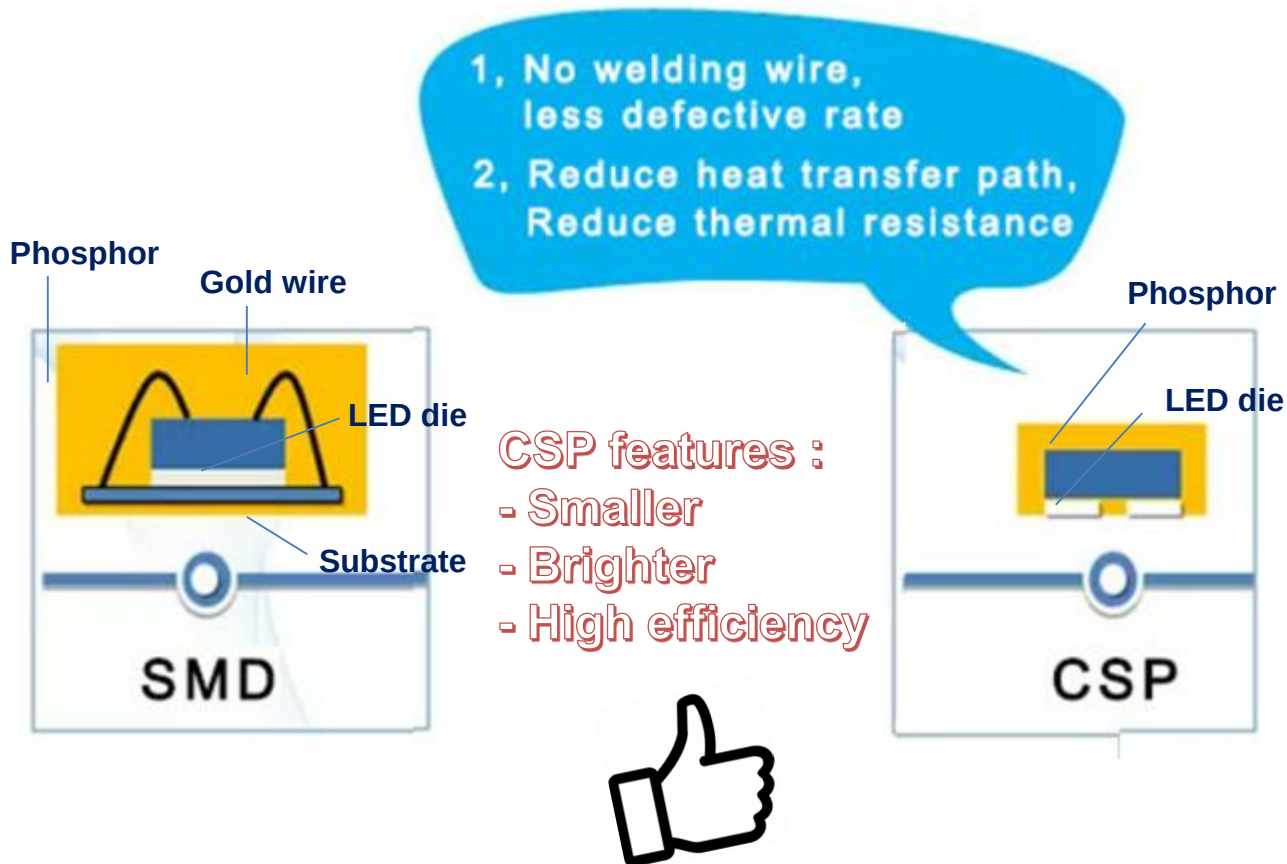
Agenda

- **CSP**
- **RGB IC**
- **Lighting**
- **Horticulture**
- **UV**

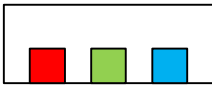
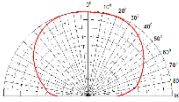
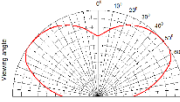
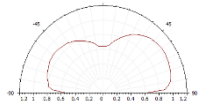
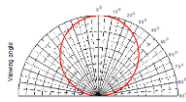
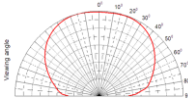
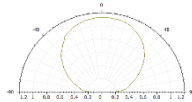
CSP LED (Chip Scale Package)

What is the difference on CSP package?

- ✓ CSP = Chip Scale Package
- ✓ Definition : Traditionally a CSP LED is defined as a LED package with a size equivalent to a LED chip, or no larger than 20%. The package product also has comprehensive component features.



CSP (Chip scale package) roadmap

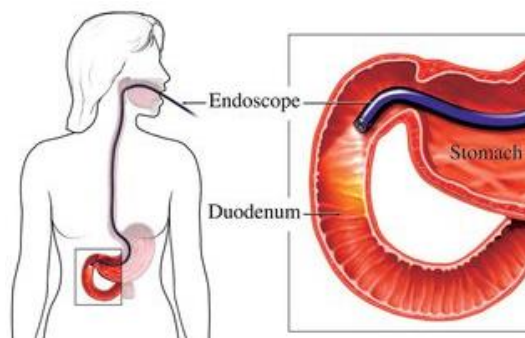
P/N	CSP0603	CSP0603	CSP0603	CSP0504	CSP0403	CSP0804	CSP0603
Features	5-sided emitter	4-sided emitter	4-sided emitter (Black on the top)	1-sided emitter	5-sided emitter (PKG Level)	5-sided emitter (RGB Chip)	5-sided emitter (PC Amber)
Appearance							
Structure							
Dimension	0.6 X 0.3mm	0.6 X 0.3mm	0.6 X 0.3mm	0.5 X 0.4mm	0.4 X 0.3mm	0.8 X 0.4mm	0.6 X 0.3mm
Thickness	0.15mm	0.2mm	0.15mm	0.15mm	0.15mm	0.15mm	0.18mm
Application	Keyboard	Keyboard function key	Keyboard	VR headset Thermos bottle	Keyboard	Keyboard	Keyboard Function key
Brightness @5mA	350mcd	200mcd	73mcd	300mcd	250mcd	R : 144mcd G : 447mcd B : 80mcd	270mcd
Light distribution							TBD
Material number	MP	MP	Developing	MP	Developing	MP	Developing

Medical Appliance



Better vision, Better life

Gastroscopy



Tradition



**A new type of endoscopy
- small, easy, comfortable**

now

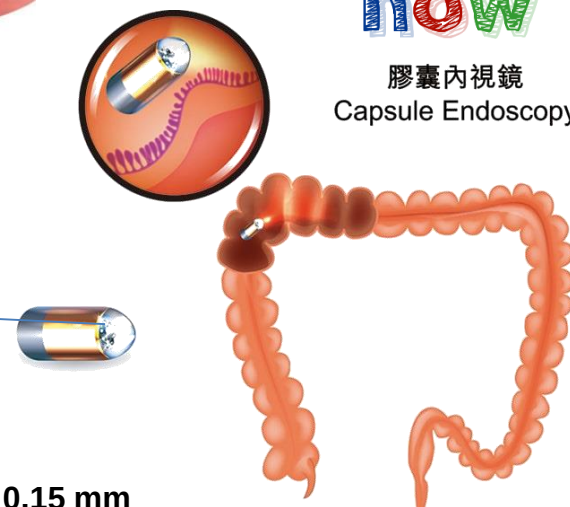
膠囊內視鏡
Capsule Endoscopy



16-219A Series
L 1.0 X W 0.5 X H 0.2 mm



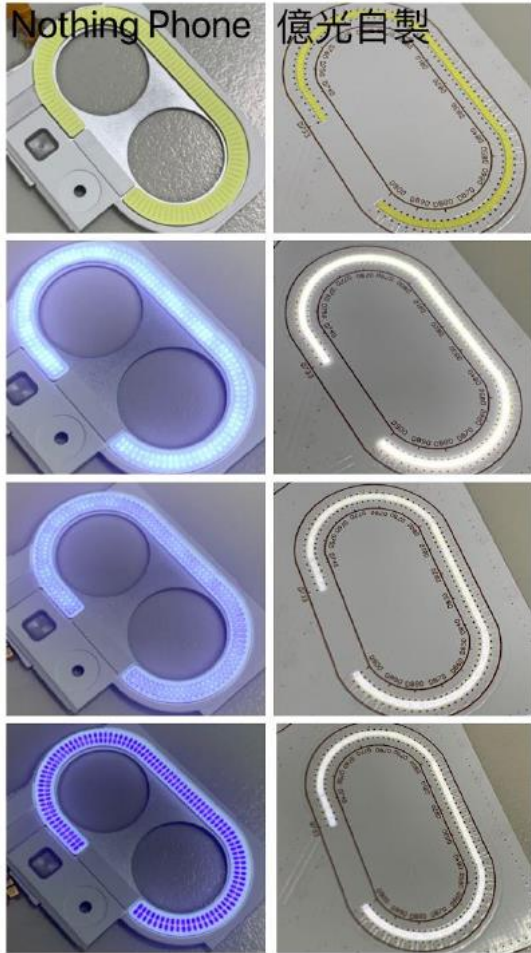
CSP0603
L 0.6 X W 0.3 X H 0.15 mm



3C Products



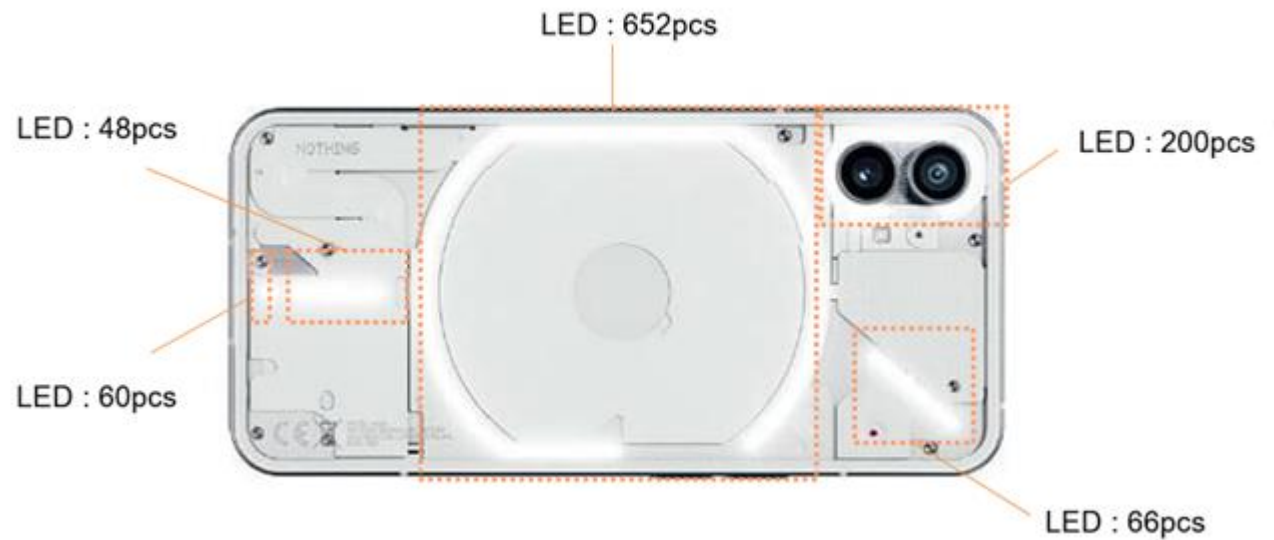
LED Glyph Pattern



NOTHING



CSP 0603 W
L 0.6 X W 0.3 X H 0.15mm



Total LED : 972pcs

Application for keyboard



CSP0603 (0.15T)
(5-sides emitter)



CSP0603 (0.2T)
(4-sides emitter)



CSP0603 (0.15T)
(4-sides emitter)



CSP0403 (0.15T)
(5-sides emitter)



CSP0804 (0.15T)
(5-sides emitter)
RGB



CCBU product roadmap

Normal PKG

ARGB

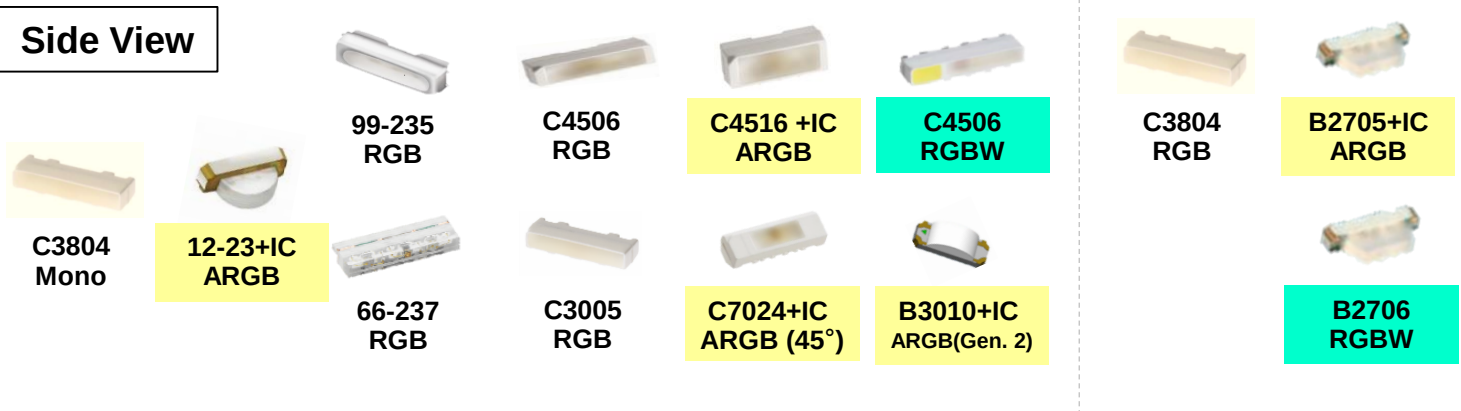
CSP

RGBW

Top View



Side View



~2022

2023

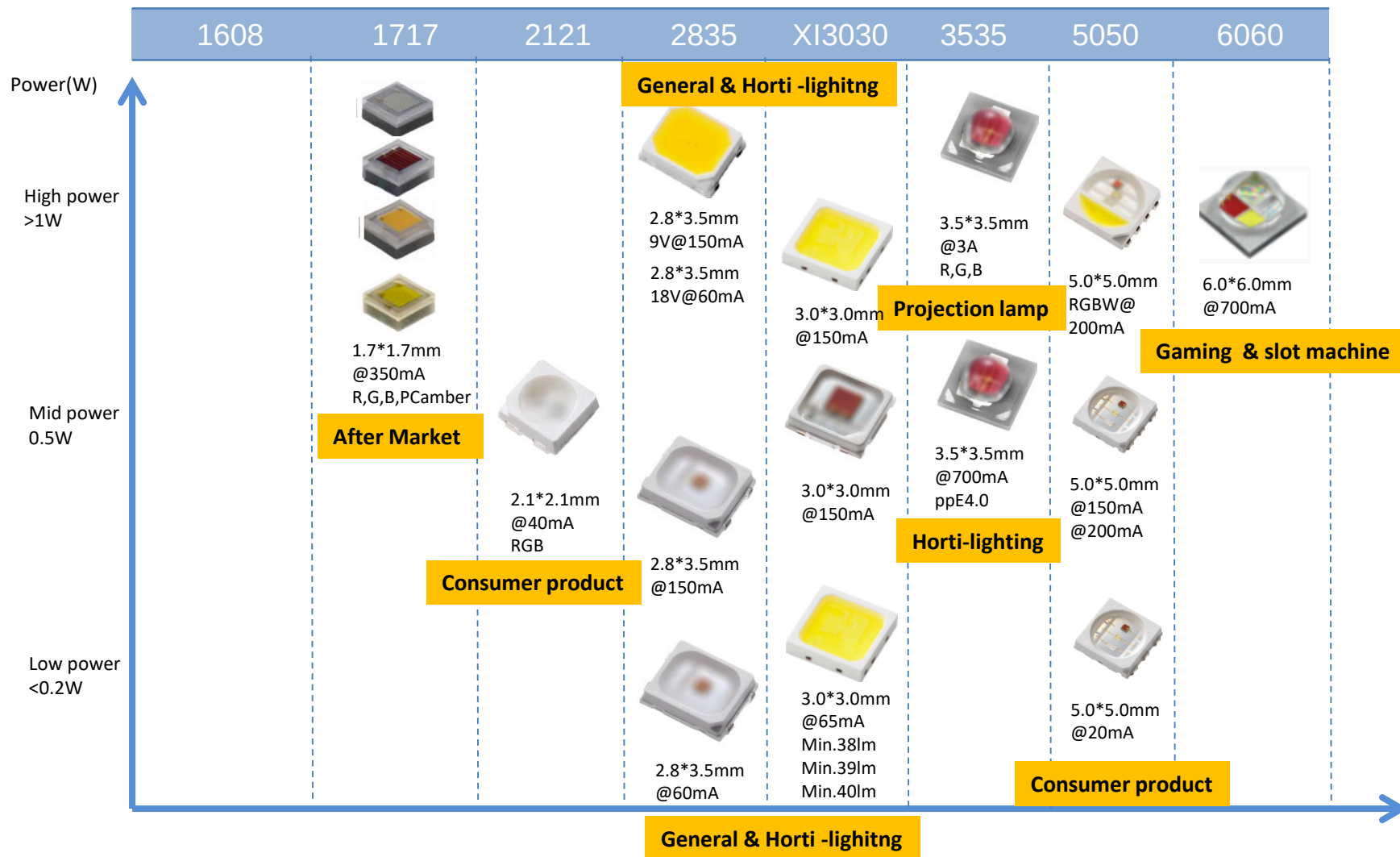
2024

Agenda

- **General Lighting Solutions**
- **Growth Lighting Solutions**
- **UV Solutions**



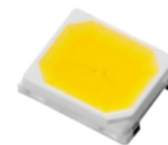
New Product Overview in EVERLIGHT LCBU



A modern interior space featuring three large, white, spherical pendant lights hanging from a ceiling with recessed lighting. The scene is overlaid with a blue geometric design consisting of several overlapping planes and a solid blue bar at the bottom. The text "General Lighting Solutions" is centered in the middle of the image.

General Lighting Solutions

2835 High Voltage/CRI Portfolio



@4000K
CRI>80

2835 3V Series

Watt(W)	0.2W		0.5W
VF(V)	3V	3V HE	3V
IF(mA)	60	60	150
Min. Flux (lm)	26lm 28lm 30lm	32lm 38lm	70lm 75lm 80lm 85lm
High CRI 90 R9>50	28lm	27lm	55lm 60lm 70lm
Application	Common fixture EU L customer Super High efficiency tube 		US M customer High efficiency tube 

2835 High Voltage/CRI Portfolio

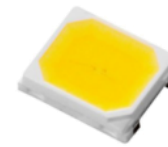


@4000K
CRI>80

2835 HV/Ra Series

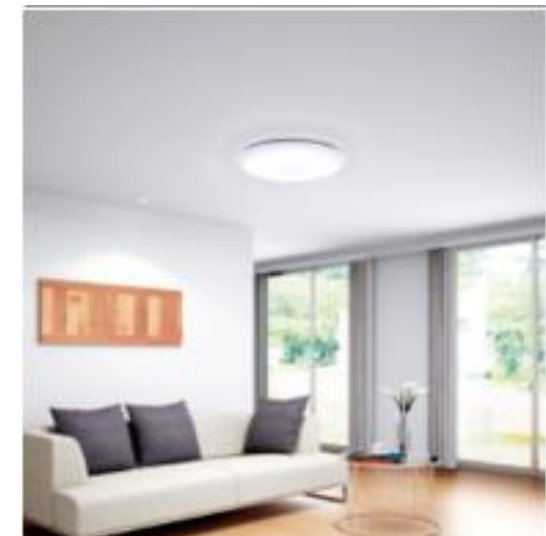
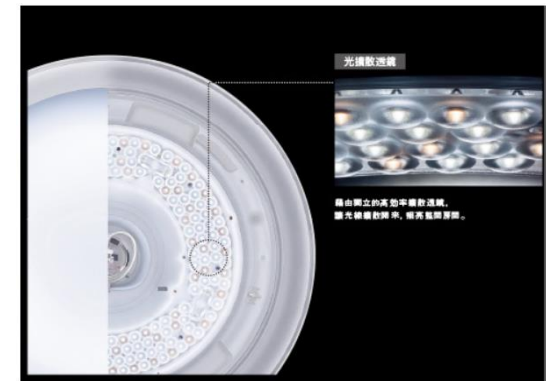
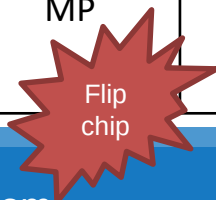
Watt(W)	0.5W		1W				
VF(V)	9V	18V	6V	9V	18V	36V	54V
Max. IF(mA)	80	30	180	120	60	36	20
Min. Flux (lm)	70lm	65lm	130lm 140lm 150lm	130lm 135lm 145lm 150lm	135lm 140lm 145lm	130lm	130lm 155lm
High CRI 90 R9>50	115lm			115lm 120lm 125lm	115lm	108lm	
Application	Bulb 			Lamp AC Down light Bulb 		Bulb 	

XI3030 Portfolio



@4000K
CRI>80

XI3030 Series				
Watt(W)	0.2W HE		1W	
VF(V)	3V	3V	6V	3V
IF(mA)	65	65	150	350
Min. Flux (lm)	40lm	38lm	138lm 143lm	140lm
Efficiency lm/W	222	215		
Release	MP	MP	MP	MP



JP customer Dimming ceiling

High Power Portfolio



@4000K
CRI>70

Model	3535 SHWO(F) 1W Series			XI5050 1W Series	
Watt(W)	1W			1W	
VF(V)	3V	3V	3V	6V	24V
IF(mA)	350	350	350	180	40
Min. Flux (lm)	165lm	175lm	195lm	210lm	168lm
Efficiency lm/W	172	165	147	200	170
Release	MP	MP	MP	MP	MP



High Efficiency 4014 / 5630 Portfolio



@4000K
CRI>80

Model	4014 0.2W Series	5630 0.2W Series
Series	KKE	KK7D KK8D KKX
Max. IF(mA)	75	180
V _F (V)	3.0V @60mA	2.73V @65mA
Flux	27lm~33lm @ 60mA	36.5lm~39.5lm @65mA
Efficiency lm/W	149~183	206~223
Release	MP	MP

China customer

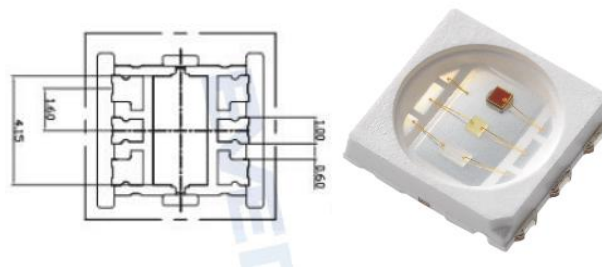


JP customer Base Light



5050 0.5W package RGB color light

5050 RGB 150mA Series			
Type.	5050ST/GRBC33-PU5/1T		
color	Red	Green	Blue
Max. IF(mA)	150		
VF @150mA	2.3	3.4	3.2
Typ. Flux @ 150mA	25	40	8.5
Wavelength (nm)	622	525	457
Release	MP		

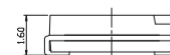
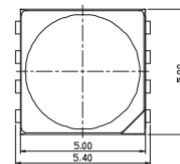


China F customer for smart bulb



With the module to control the light color through the APP software, the LED can use RGB+IC to achieve the effect.

5050 0.5W package RGBW color light



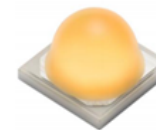
5050 RGBW 100mA Series

Type.	5050/RGBWD-A100/ET			
color	Red	Green	Blue	White
Max. IF(mA)	100			
VF @100mA	2.1	3	3.1	2.9
Typ. Mcd @100mA	5000	11000	3000	10000
Wavelength (nm)	624	528	468	2700~6500K
Release	MP			





High Power 3535 performance



Power (W)	Wavelength (nm)	Forward current (mA)	Minimum Radiant Flux (mW)	Typ. Radiant Flux (mW)	PPF (umole/s)	PPE (umole/J)	Typ. Forward Voltage(V)	EL Order code	correspond Osram code
1W	450	350	600	722	2.75	2.77	2.84	ELSWF-R61L1-6FPNM-CB4B6	NA
		700	1300	1380	5.2	2.5	2.95		
	660	350	500	520	2.7	3.8	2.1	HPL3535CZ0112-NDR5565500X24350-1T	GH CSSPM1.24 OSLON® SSL 120
		700	1020	1050	4.98	2.98	2.38	HPL3535CZ0112-NDR5565F4X24700-1T	
	730	350	275	363	0.07	0.11	1.93	ELSW-Q91F1-0LPNM-AF3F8	GF CSSPM1.24 OSLON® SSL 120
		700	500	706	0.16	0.1	2.27		
2W	450	700	1300	1500	5.28	2.5	3.25	ELSWF-S41L2-6FPNM-DB4B6	GF CSSPM2.24 OSLON® Square
		1000	1600	1898	7.15	2.35	3.04		
	660	700	940	1022	5.5	3.6	2.18	ELSWN-S11E2-5EPNM-AD3D8	GH CSSRM3.24 OSLON Square
		1000	1300	1404	7.5	3.1	2.42		
		700	950	1070	5.83	3.87	2.15	HPND3535CZ0112-NDR55651K0X24700-4H	GH CSSRM4.24 OSLON® Square
		1000	1300	1500	8.28	3.47	2.38		

UV LED Package Products in EVERLIGHT

