

SOURCECHIP OPTO-ELECTRICAL TECH CO.,LTD.

5mm ROUND Ultra Bright LEDS

PART NO.: SC5034FWC-15

DEVICE NO:909601

REV:1.0

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Features:

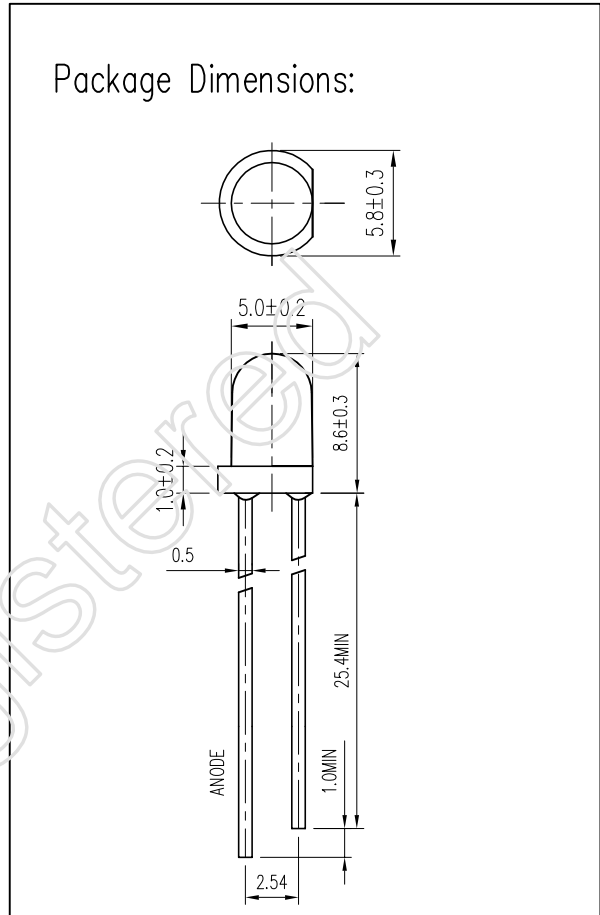
- *Fluorescence Type
- *Superior Sic Substrate Technology
- *High reliability
- *Emission Color : $x=0.31,y=0.31$

Descriptions:

*The white LED which was fabricated using a blue LED and a phosphor, and the phosphor is excited by blue light and emits yellow fluorescence. The mixture of blue light and yellow light results in a white emission.

Applications:

- *OA Equipment
- *Backlighting of LCD
- *Automotive Equipment
- *Replacement of conventional Light Bulbs and Fluorescent lamps



Notes:

- 1.All dimensions are in millimeters.
- 2.An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.
- 3.Tolerances unless dimension ± 0.25mm.

PART NO	CHIP		LENS COLOR
	MATERIAL	EMITTED COLOR	
SC5034FWC-15	InGaN	WHITE	WATER CLEAR

APPROVED:

CHECKED:

DRAWN:ChenYouZhi

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ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

Parameter	Symbol	Rating	Unit
Forward current	IF	20	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260±5	°C
Electrostatic Discharge	ESD	1000	V
Power Dissipation	Pd	70	mW
Peak Forward Current (duty 1/10@ 1KHz)	IF(Peak)	120	mA
Reverse Voltage	VR	5	V

Electronic Optical Characteristics:

Parameter	Symbol	min.	max	Unit	Condition
Luminous Intensity	IV	18000	20000	mcd	IF=20mA
Viewing Angle	2 1/2	---	15	deg	IF=20mA
Chromaticity*1	X	---	0.31	nm	IF=20mA
Coordinates	Y	---	0.31	nm	IF=20mA
Forward Voltage	VF	3.0	3.4	V	IF=20mA
Reverse Current	IR	---	10	uA	vR=5v

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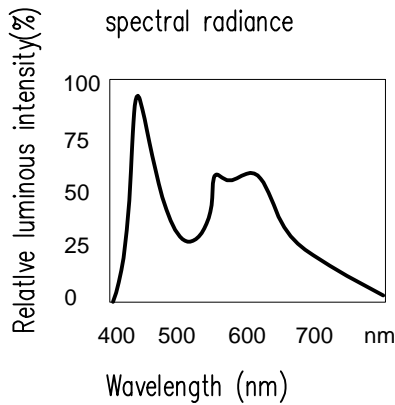
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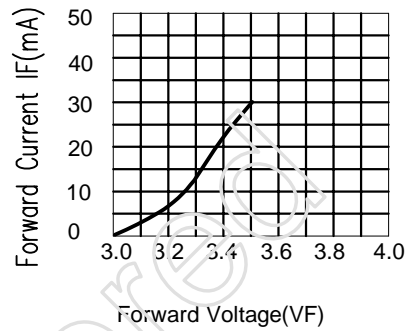
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Typical Electro-Optical Characteristic Curves

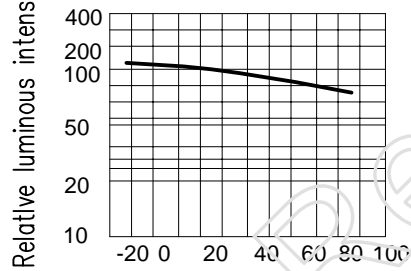
Luminous Spectrum(Ta=25°C)



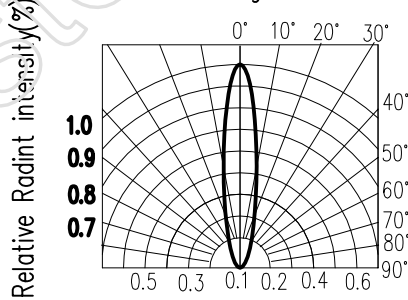
Forward Current Vs Forward Voltage Ta=25°C



Relative luminous intensity Vs Ambient Temperature (IF=20mA)

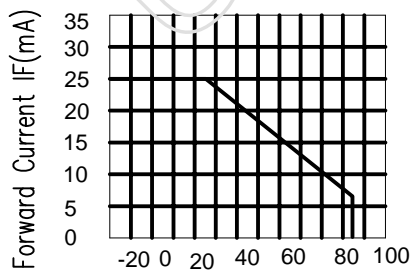


Radiation Diagram Ta=25°C



Ambient Temperature Ta(°C)

Forward Current Derating Curve Ta=25°C



Ambient Temperature Ta(°C)

Radiation Diagram

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Reliability test items and conditions:

NO	ITEM	Test Conditions	TEST Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP: 260°C±5°C	5Sec	76PCS	0/1
2	Temperature Cycle	H: +85°C 30min ∫ 5min L: -55°C 30min	50Cycles	76PCS	0/1
3	Thermal Shock	H: +100°C 5min ∫ 10Sec L: -10°C 5min	50Cycles	76PCS	0/1
4	High Temperature Storage	TEMP: 100°C	1000HRS	76PCS	0/1
5	Low Temperature Storage	TEMP: -55°C	1000HRS	76PCS	0/1
6	DC Operating Life	TEMP: 25°C IF=20mA	1000HRS	76PCS	0/1
7	High Temperature/ High Humidity	85°C/85% RH	1000HRS	76PCS	0/1

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