

# PSL0205 series PSML3

## Features

- High Brightness High Heat Dissipation White LEDs
- ROHM's Original Heat Dissipation Package
- Line-up for Backlighting & Illumination

 Color Type **WB**

## Specifications

### [For Backlighting]

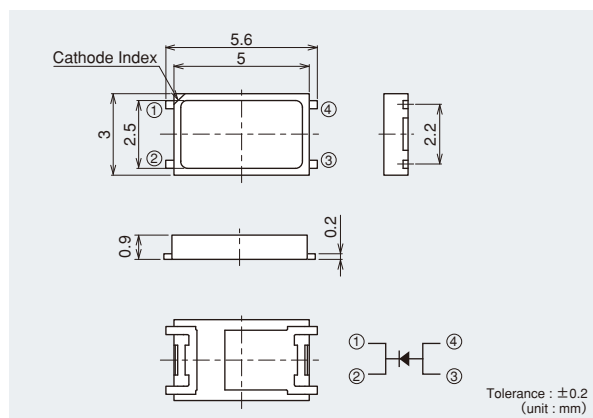
Part No.	Chip Structure	Emitting Color	High Color Rendering Index (Ra) <sup>a1</sup>	Absolute Maximum Ratings (Ta=25°C)						Electrical and Optical Characteristics (Ta=25°C)									
				Power Dissipation P <sub>D</sub> (mW)	Forward Current I <sub>F</sub> (mA)	Peak Forward Current I <sub>FP</sub> (mA)	Reverse Voltage V <sub>R</sub> (V)	Operating Temperature Topr(°C)	Storage Temperature Tstg(°C)	Forward Voltage V <sub>F</sub> (V)	Reverse Current I <sub>R</sub> (μA)	Chromaticity Coordinates (x, y)	Luminous Intensity I <sub>v</sub> (cd)	Luminous Flux Φ <sub>v</sub> (lm)	Luminous Flux Φ <sub>v</sub> (mA)				
□ PSL0205WBWW	InGaN	White	-	525	150	300 <sup>a2</sup>	5	-40 to +100	-40 to +100	3.1	60	10	5	(0.275,0.245)	60	2.8	4.2	16	60
□ PSL0205WBCW														(0.305,0.290)		3.55	4.6	18	

### [For Illumination]

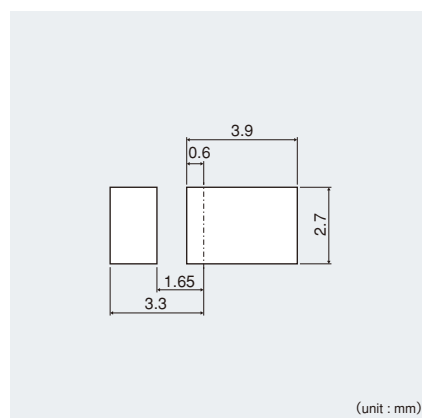
Part No.	Chip Structure	Emitting Color	High Color Rendering Index (Ra)	Absolute Maximum Ratings (Ta=25℃)					Electrical and Optical Characteristics (Ta=25℃)											
				Power Dissipation P <sub>o</sub> (mW)	Forward Current I <sub>F</sub> (mA)	Peak Forward Current I <sub>FP</sub> (mA)	Reverse Voltage V <sub>R</sub> (V)	Operating Temperature Topr(℃)	Storage Temperature Tstg(℃)	Forward Voltage V <sub>F</sub> Typ. (V)	I <sub>F</sub> (mA)	Reverse Current I <sub>R</sub> Max. (μA)	V <sub>R</sub> (V)	Chromaticity Coordinates (x, y)	I <sub>F</sub> (mA)	Luminous Intensity I <sub>v</sub> Min (cd)	Luminous Intensity I <sub>v</sub> Typ. (cd)	Luminous Intensity I <sub>v</sub> (mA)	Luminous Flux Φ <sub>v</sub> Typ. (lm)	I <sub>F</sub> (mA)
□ PSL0205WBEBW	InGaN	White (5000K)	80	525	150	300*2	5	-40 to +100	-40 to +100	3.1	60	10	5	(0.345,0.350)	60	3.55	5.0	19	60	
□ PSL0205WBECW			90													2.8	4.2	60		16
□ PSL0205WBEDW			70													3.55	5.5	21		
□ PSL0205WBFBW		White (3000K)	80	525	150	300*2	5	-40 to +100	-40 to +100	3.1	60	10	5	(0.440,0.405)	60	2.8	4.5	17		
□ PSL0205WBFCW			90													3.8	60	14		
□ PSL0205WBFDW			70													3.55	4.8	18		

\*1:Ra=over 95 is available \*2:Duty ≤ 1/10, pulse width 10ms

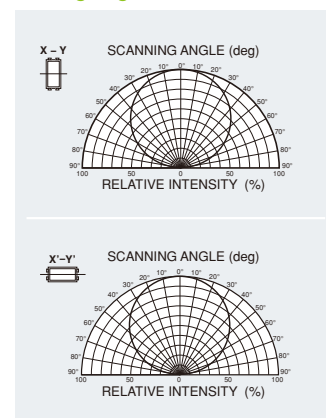
## Dimensions



## Recommended Solder Pattern

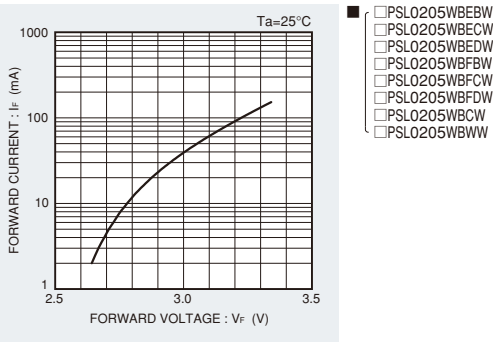


## Viewing Angle

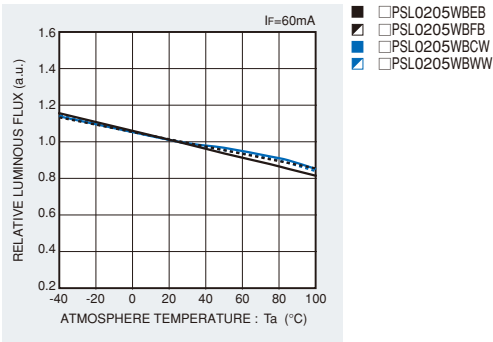


Electrical Characteristics Curves

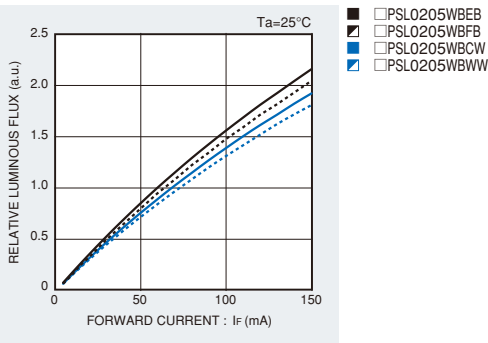
Forward Current-Forward Voltage



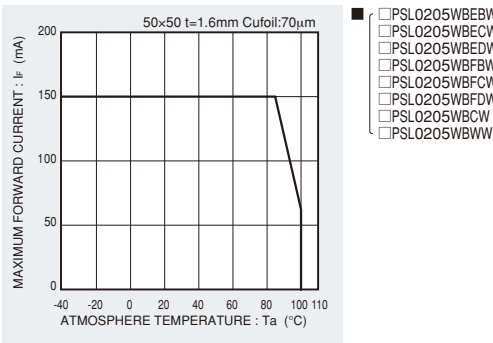
Luminous Intensity-Atmosphere Temperature



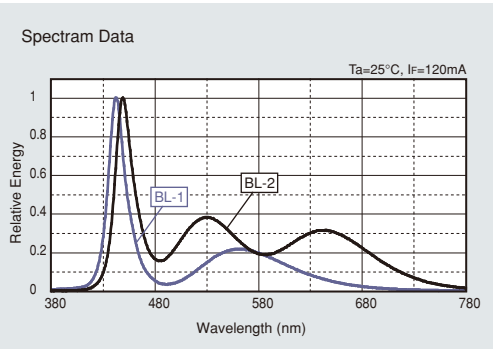
Luminous Intensity-Forward Current



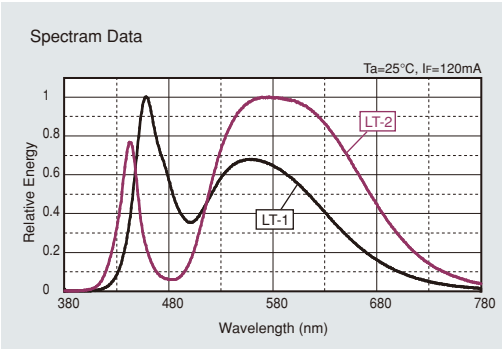
Derating



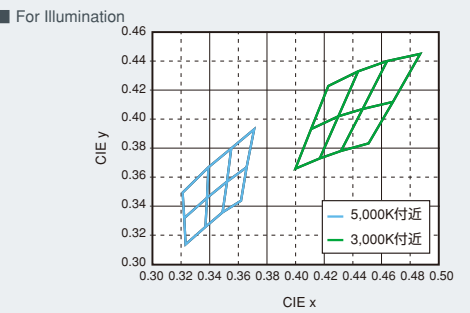
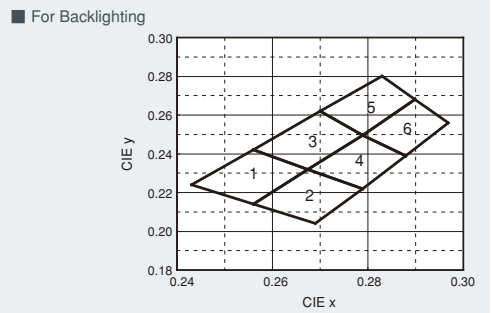
Backlighting		Relative Brightness	Ra
BL-1	Blue Die + Yellow Phosphor	1	70
BL-2	Blue Die + Red and Green Phosphor	0.8	90



Illumination		Relative Brightness	Ra
LT-1	Blue Die + Yellow Phosphor	1	70
LT-2	Blue Die + Yellow and Red Phosphor	0.9	85



Chromaticity Diagram



Rank Reference of Brightness

■ White (WB)

Package structure	Package size	Height (mm)	Luminous flux (lm) I <sub>F</sub> (mA)	A	B	C	D	E	F	G	H	J	K	L	M
				1.5 to 1.8	1.8 to 2.2	2.2 to 2.7	2.7 to 3.3	3.3 to 4.0	4.0 to 4.8	4.8 to 5.8	5. to 7.0	7.0 to 8.5	8.5 to 10.2	10.2 to 12.3	12.3 to 14.8
PSML3	5630	0.9	60						PSL0205WBEB						
									PSL0205WBEC						
									PSL0205WBED						
									PSL0205WBFB						
									PSL0205WBFC						
									PSL0205WBFD						
									PSL0205WBCW						
									PSL0205WBWW						

Part No. Construction

P S L			0 2 0 5				W B C A 1				E 2	
Series name			Package type				Emitting type				Rank sign (Brightness Rank) *1	
PSL			High power LED series				WB White				Rank sign (Chromaticity Rank) *1	
							A (Ra=65) B (Ra=80) C (Ra=90) D (Ra=74)					

\*1 Concerning the Brightness rank

- Please refer to the rank chart above for luminous intensity classification.
- Part name is individual for each rank.
- When shipped as sample, the part name will be a representative part name.

General products are free of ranks. Please contact sales if rank appointment is needed.

\*2 Please refer to chromaticity diagram.

\*Please refer to the Specification sheet about Taping specification.

Packing Specification

ROHM LED products are being shipped with desiccant (silica gel) concluded in moisture-proof bags.

Pasting the moisture sensitive label on the outer surface of the moisture-proof bags or enclosing the humidity indication card inside the bag is available upon request.

Please contact the nearest sales office or distributor if necessary.

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