

# Chip LEDs with Reflector 1208<3.0×2.0 t=1.3mm> High Brightness Type

## SML013WB\*\*\* Series

Emitting Color	White
Material	InGaN on SiC
Package Size(mm)	
	3020(1208) 3.0×2.0(t=1.3)
Part No.	SML013BWDW

note) "\*" will be taken out for emitting color B/E series.

### Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	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 T <sub>opr</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)
SML013BWDW	White	78	20	100	5	-30 to +85	-40 to +100

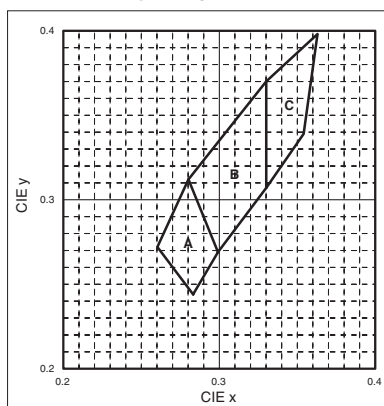
\*:Duty ≤ 1/10, 1kHz

### Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin	Forward voltage V <sub>F</sub>		Reverse current I <sub>R</sub>		Chromaticity coordinates			Brightness I <sub>v</sub>		
		Typ. (V)	I <sub>F</sub> <sup>-1</sup> (mA)	Max. (μA)	V <sub>R</sub> (V)	x	y	I <sub>F</sub> <sup>-1</sup> (mA)	Min. (mcd)	Typ. (mcd)	I <sub>F</sub> <sup>-1</sup> (mA)
SML013BWDW	Phosphor included	3.2	20	100	5	0.30	0.30	20	360	900	20

\*1:Pulse width : 30ms

### Chromaticity Diagram

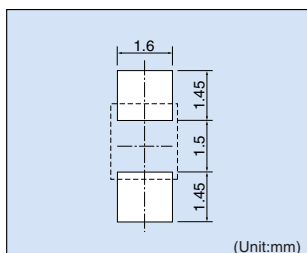


Chromaticity Coordinates (Ta=25°C, I<sub>F</sub>=20mA)

A		B		C	
x	y	x	y	x	y
0.283	0.244	0.280	0.312	0.330	0.307
0.299	0.269	0.330	0.370	0.354	0.339
0.280	0.312	0.330	0.307	0.363	0.398
0.260	0.272	0.299	0.269	0.330	0.370

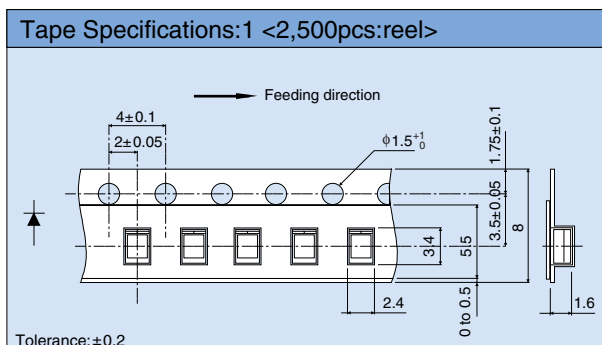
Measurement tolerance:±0.01

### Recommended Pad Layout



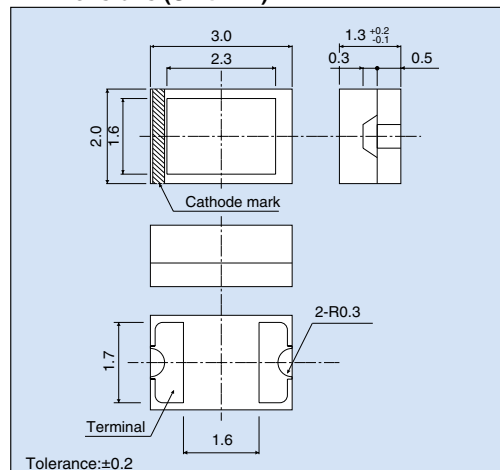
The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

### Packaging Specifications (Unit:mm)

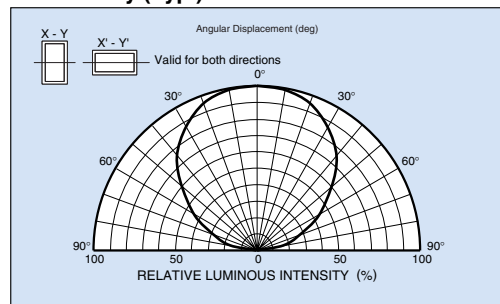


Tolerance:±0.2

### Dimensions (Unit:mm)

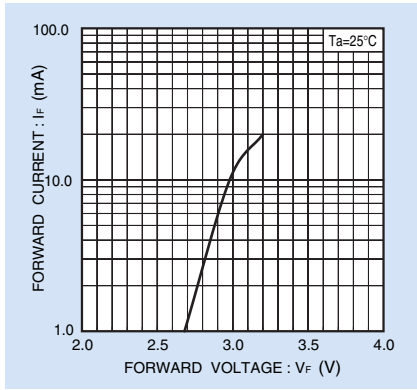


### Directivity (Typ.)



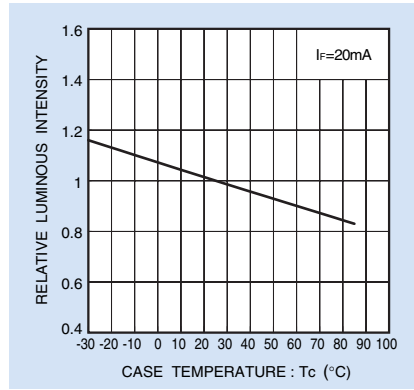
## Electrical Characteristic Curves

### Forward Current - Forward Voltage



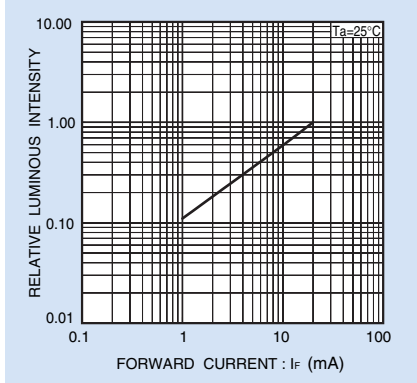
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### Relative Luminous Intensity - Case Temperature



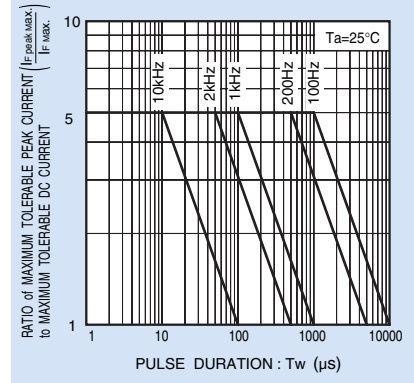
— SML013WBDW

### Relative Luminous Intensity - Forward Current



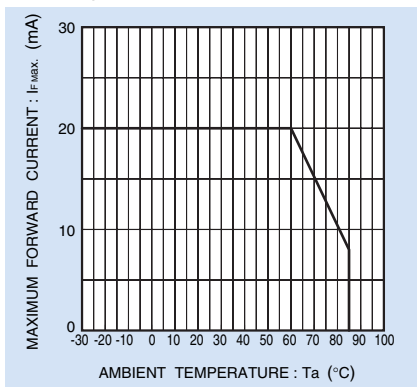
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### Ratio of Maximum Tolerable Peak Current - Pulse Duration



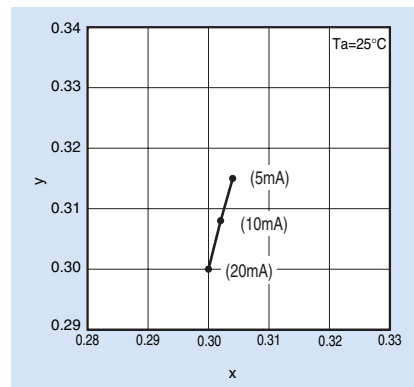
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### Derating



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### Forward Current - Chromaticity Diagram



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