

# 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.	SML013BBDW

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)
SML013BBDW	White	78	20	100	5	-30 to +85	-40 to +100

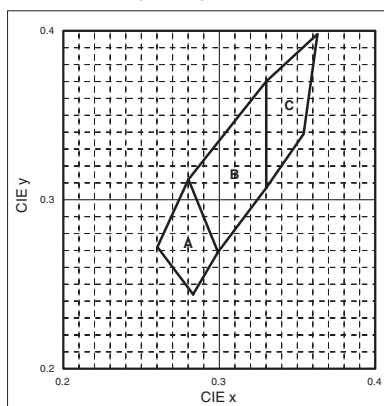
\*:Duty ≤ 1/10, 1kHz

### 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)
SML013BBDW	Phosphor included	3.2	20	100	5	0.30	0.30	20	360	900	20

\*1:Pulse width : 30ms

### Chromaticity Diagram

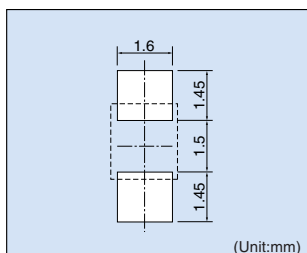


Chromaticity Coordinates (Ta=25°C, I<sub>F</sub>=20mA)

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

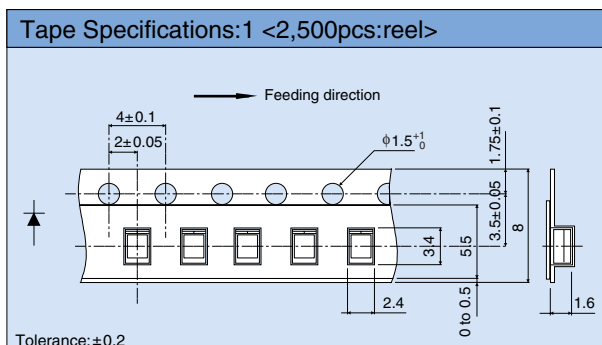
Measurement tolerance:±0.01

### Recommended Pad Layout



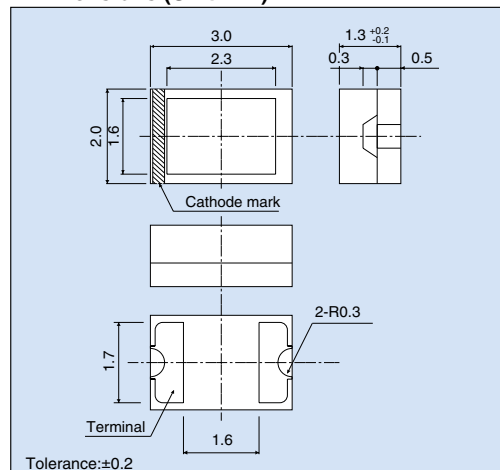
The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

### Packaging Specifications (Unit:mm)



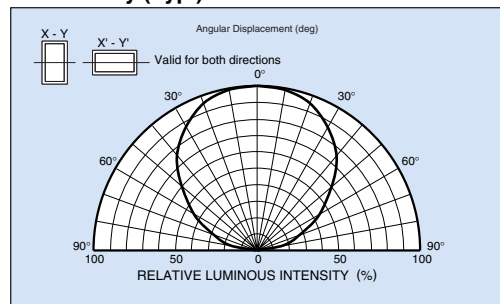
Tolerance:±0.2

### Dimensions (Unit:mm)

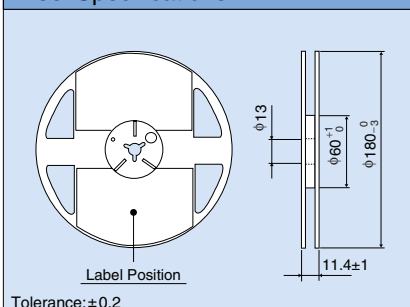


Tolerance:±0.2

### Directivity (Typ.)



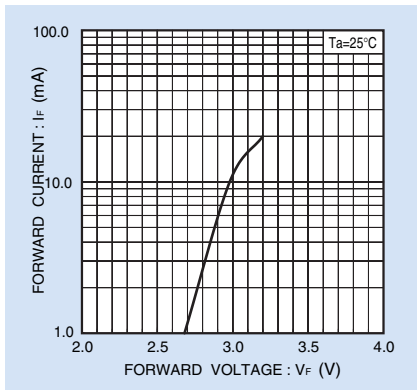
### Reel Specifications



Tolerance:±0.2

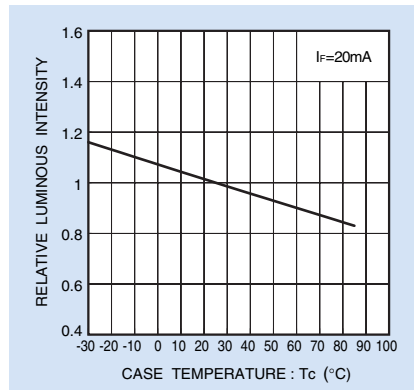
■ Electrical Characteristic Curves

Forward Current - Forward Voltage



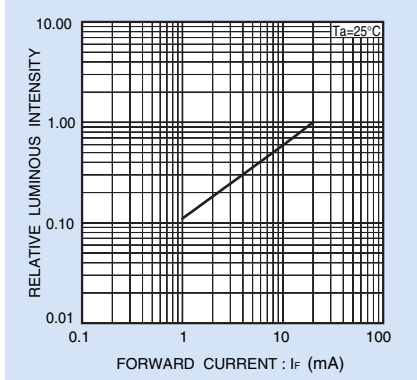
— SML013WBDW

Relative Luminous Intensity - Case Temperature



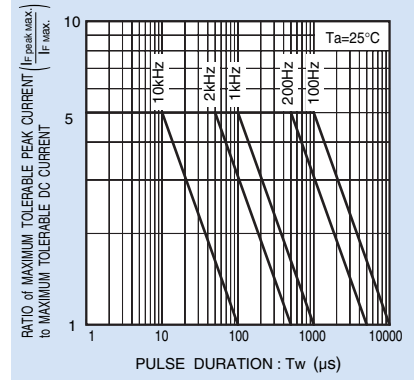
— SML013WBDW

Relative Luminous Intensity - Forward Current



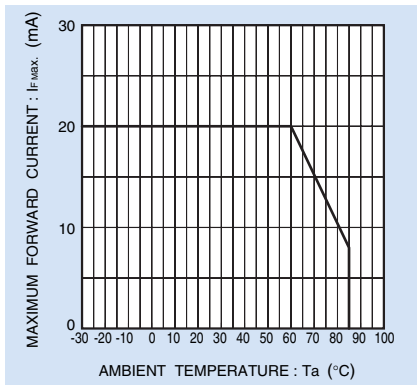
— SML013WBDW

Ratio of Maximum Tolerable Peak Current - Pulse Duration



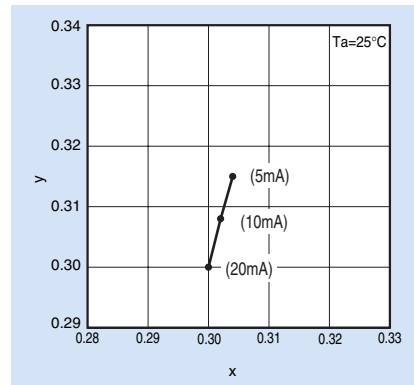
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Derating



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Forward Current - Chromaticity Diagram



— SML013WBDW

## Appendix

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