

# 0603 <1.6×0.8 t=0.36mm> Low Current Type(I<sub>F</sub>≤10mA)

## SMLE12WB \*\*\* Series

Emitting Color	White
Material	InGaN on SiC
Package Size(mm)	
Part No.	SMLE12WBC7W

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

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

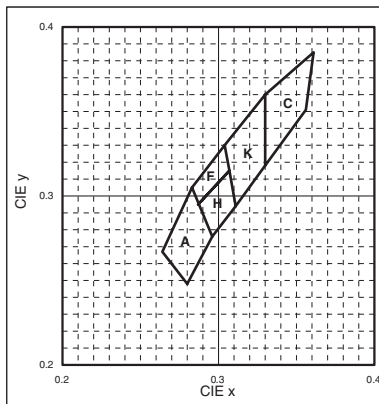
Part No.	Emitting color	Power dissipation P <sub>d</sub> (mW)	Forward current I <sub>F</sub> (mA)	Peak forward current I <sub>FP</sub> * (mA)	Reverse voltage V <sub>R</sub> (V)	Operating temperature T <sub>opr</sub> (°C)	Storage temperature T <sub>stg</sub> (°C)
SMLE12WBC7W	White	66	20	100	5	-30 to +85	-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>		Brightness I <sub>v</sub>			Chromaticity coordinates		
		Typ. (V)	I <sub>F</sub> (mA)	Max. (μA)	V <sub>R</sub> (V)	Min. (mcd)	Typ. (mcd)	I <sub>F</sub> (mA)	X	Y	I <sub>F</sub> (mA)
SMLE12WBC7W	Phosphor included	2.9	5	100	5	22	71	5	0.30	0.30	5

### Chromaticity Diagram

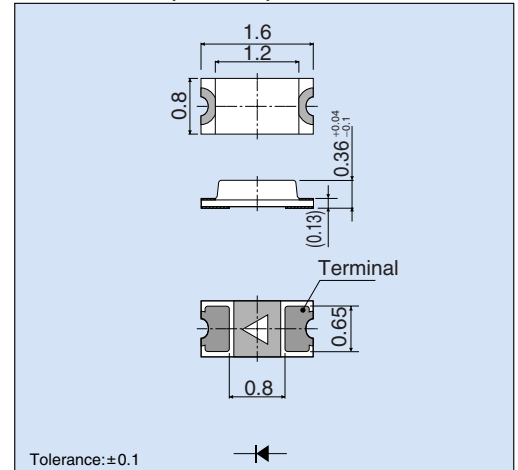


Chromaticity Coordinates (Ta=25°C, I<sub>F</sub>=5mA)

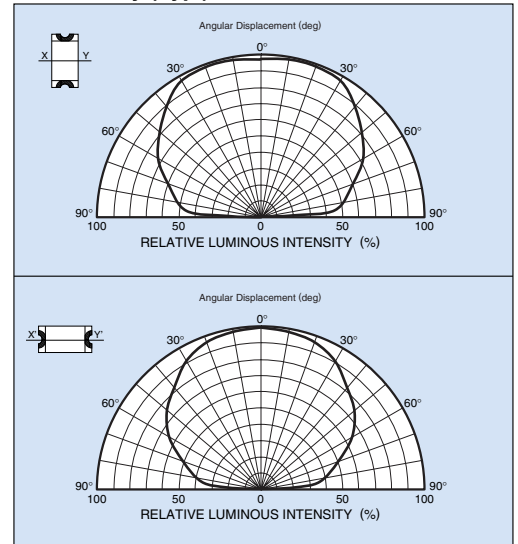
A		F		H		K		C	
x	y	x	y	x	y	x	y	x	y
0.280	0.248	0.283	0.305	0.287	0.295	0.304	0.330	0.330	0.318
0.296	0.276	0.304	0.330	0.307	0.315	0.330	0.360	0.356	0.351
0.283	0.305	0.307	0.315	0.311	0.294	0.330	0.318	0.361	0.385
0.264	0.267	0.287	0.295	0.296	0.276	0.311	0.294	0.330	0.360

Measurement tolerance:±0.02

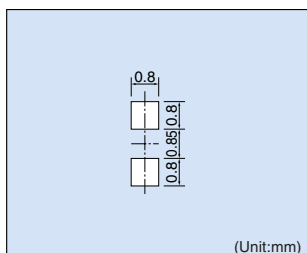
### Dimensions (Unit:mm)



### Directivity (Typ.)

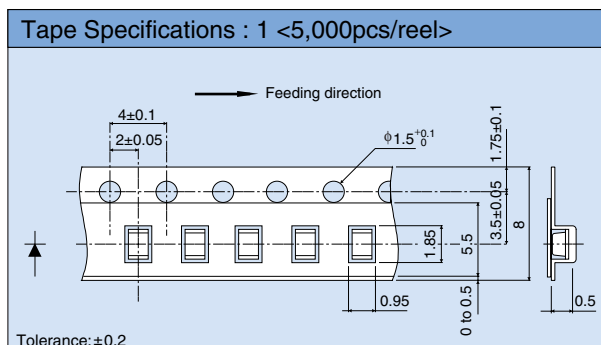


### Recommended Pad Layout

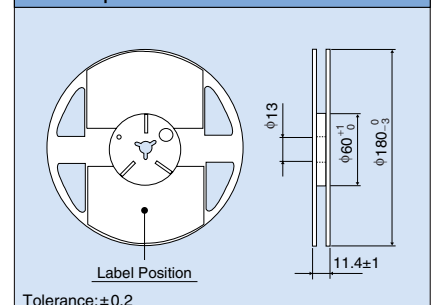


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

### Packaging Specifications (Unit:mm)

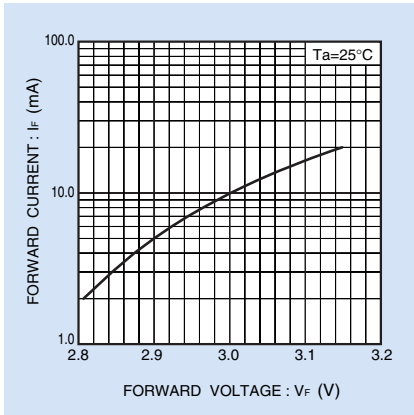


### Reel Specifications



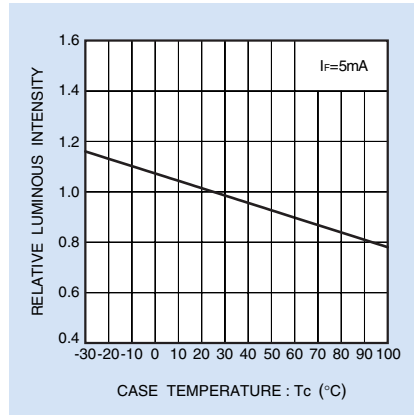
## ■ Electrical Characteristic Curves

### Forward Current - Forward Voltage



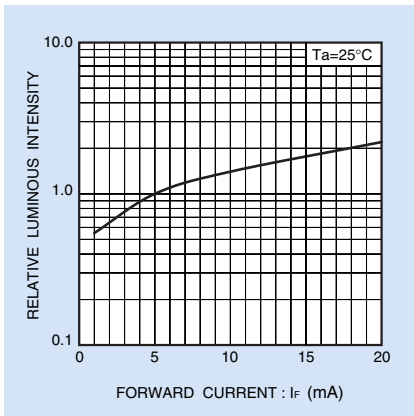
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### Relative Luminous Intensity - Case Temperature



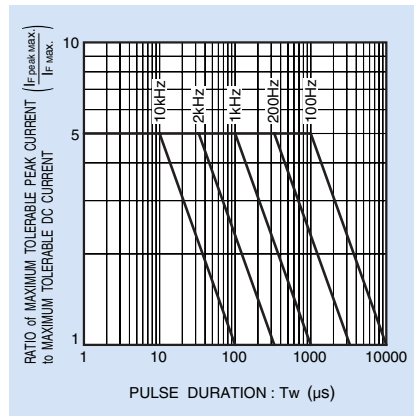
— SMLE12WBC7W

### Relative Luminous Intensity - Forward Current



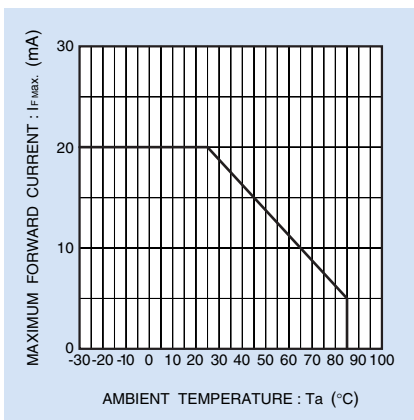
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### Ratio of Maximum Tolerable Peak Current - Pulse Duration



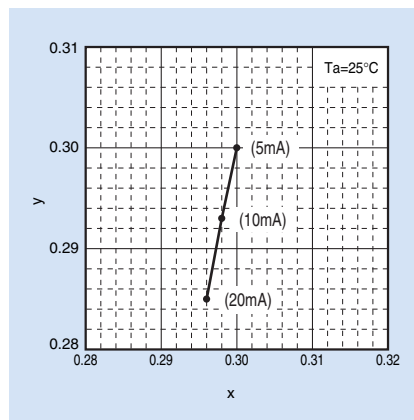
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### Derating



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### Forward Current - Chromaticity Diagram



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