

0603 <1.6×0.8 t=0.36mm> Low Current Type($I_F \leq 10\text{mA}$)

SMLE12WB *** Series

Emitting Color	White						
Material	InGaN on SiC						
Package Size(mm)	 1608(0603) 1.6×0.8(t=0.36)						
Part No.	SMLE12WBC7W						

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

Absolute Maximum Ratings (Ta=25°C)

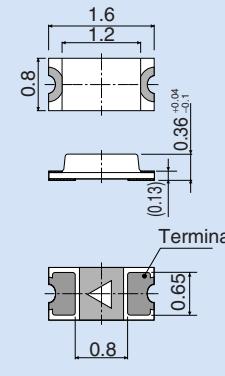
Part No.	Emitting color	Power dissipation P_D (mW)	Forward current I_F (mA)	Peak forward current I_{FP}^* (mA)	Reverse voltage V_R (V)	Operating temperature T_{opr} (C)	Storage temperature T_{stg} (C)
SMLE12WBC7W	White	66	20	100	5	-30 to +85	-40 to +100

*:Duty $\leq 1/10$, 1kHz.

Electrical Optical Characteristics (Ta=25°C)

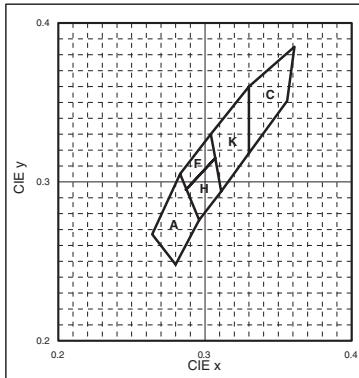
Part No.	Resin	Forward voltage V_F		Reverse current I_R		Brightness I_v			Chromaticity coordinates		
		Typ. (V)	I_F (mA)	Max. (μA)	V_R (V)	Min. (mcd)	Typ. (mcd)	I_F (mA)	X	Y	I_F (mA)
SMLE12WBC7W	Phosphor included	2.9	5	100	5	22	71	5	0.30	0.30	5

Dimensions (Unit:mm)



Tolerance:±0.1

Chromaticity Diagram

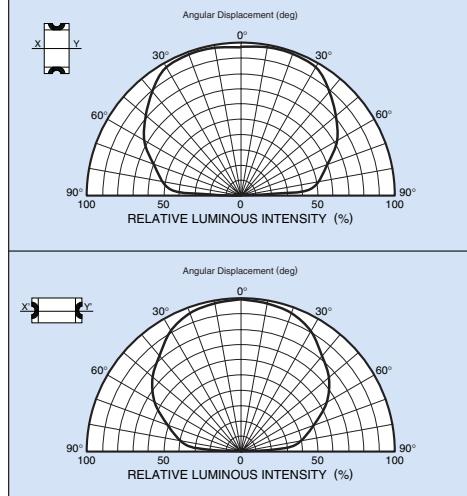


Chromaticity Coordinates (Ta=25°C, IF=5mA)

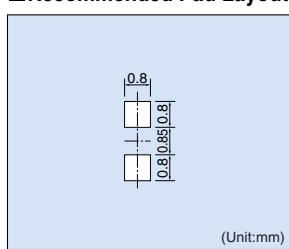
A		F		H		K		C	
x	y	x	y	x	y	x	y	x	y
0.280	0.248	0.283	0.305	0.287	0.295	0.300	0.330	0.330	0.318
0.296	0.276	0.304	0.330	0.307	0.315	0.330	0.360	0.356	0.351
0.283	0.305	0.307	0.315	0.311	0.294	0.330	0.318	0.361	0.385
0.264	0.267	0.287	0.295	0.296	0.276	0.311	0.294	0.330	0.360

Measurement tolerance:±0.02

Directivity (Typ.)

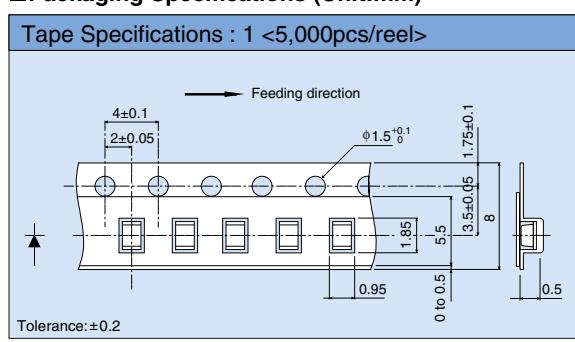


Recommended Pad Layout

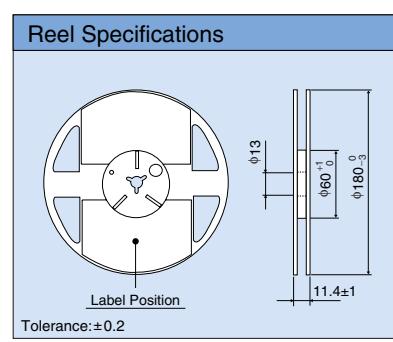


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

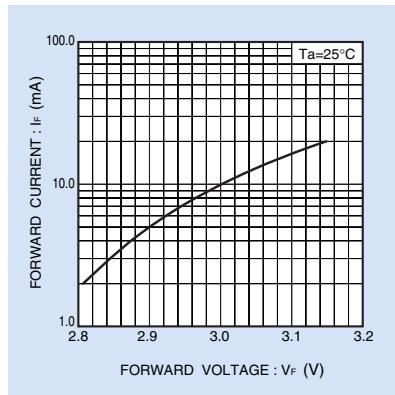


Reel Specifications

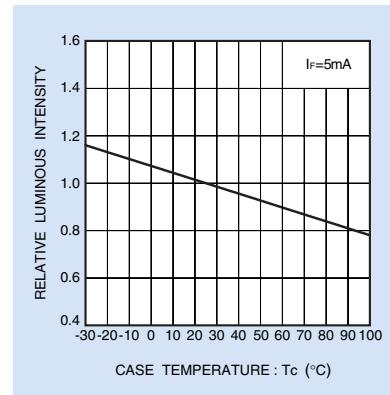


■ Electrical Characteristic Curves

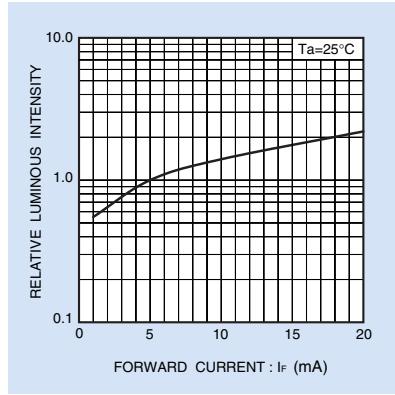
Forward Current - Forward Voltage



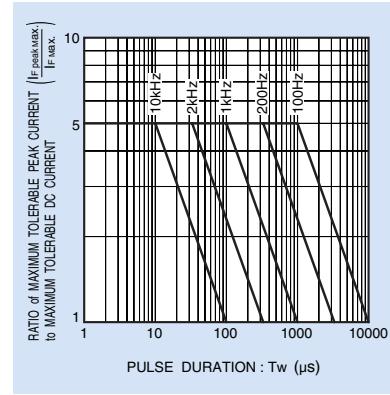
Relative Luminous Intensity - Case Temperature



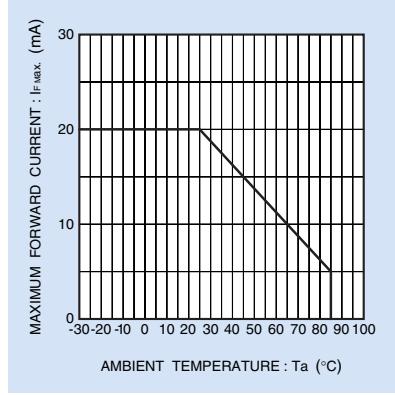
Relative Luminous Intensity - Forward Current



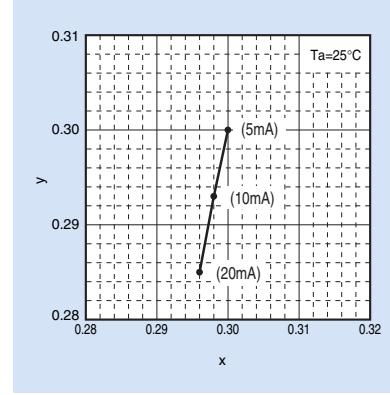
Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating



Forward Current - Chromaticity Diagram



Appendix

Notes

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