

0402<1.0×0.6 t=0.2mm>
Standard Type

SMLP12WB *** Series

Emitting Color	White
Material	InGaN on SiC
Package Size(mm)	
1006(0402) 1.0×0.6(t=0.2)	
Part No.	SMLP12WBC7W

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

Absolute Maximum Ratings (Ta=25°C)

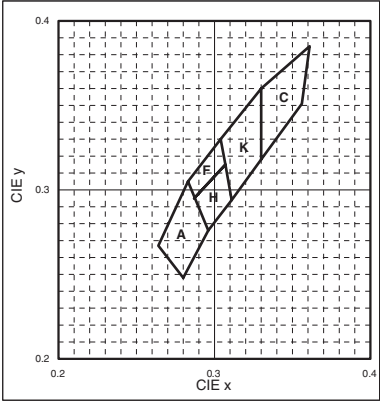
Part No.	Emitting color	Power dissipation Pd (mW)	Forward current IF (mA)	Peak forward current IFP (mA)	Reverse voltage VR (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
SMLP12WBC7W	White	66	20	100	5	-40 to +85	-40 to +100

※:Duty ≤1/10,1kHz.

Electrical Optical Characteristics (Ta=25 °C)

Part No.	Resin	Forward voltage VF		Reverse current IR		Brightness Iv			Chromaticity coordinates		
		Typ. (V)	IF (mA)	Max. (μA)	VR (V)	Min. (mcd)	Typ. (mcd)	IF (mA)	x	y	IF (mA)
SMLP12WBC7W	Phosphor included	2.9	5	100	5	36	71	5	0.30	0.30	5

Chromaticity Diagram

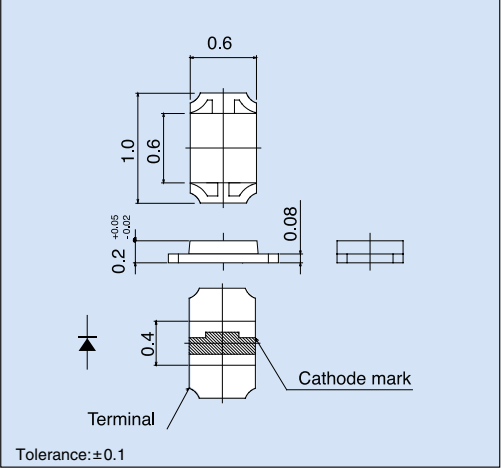


Chromaticity Coordinates (Ta=25°C, IF=5mA)

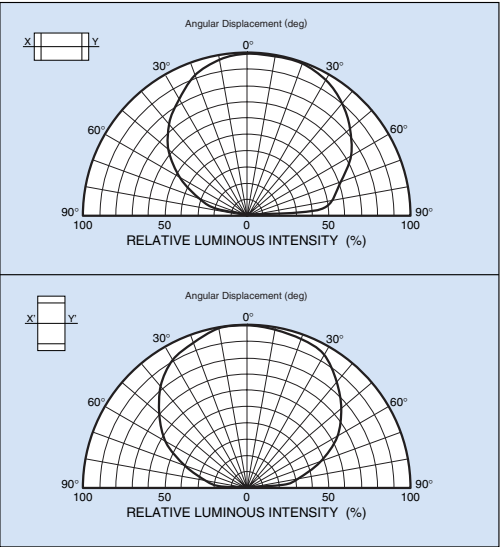
A		F		H		K		C	
x	y	x	y	x	y	x	y	x	y
0.280	0.248	0.283	0.305	0.287	0.295	0.304	0.330	0.330	0.318
0.296	0.276	0.304	0.330	0.307	0.315	0.330	0.360	0.356	0.351
0.283	0.305	0.307	0.315	0.311	0.294	0.330	0.318	0.361	0.385
0.264	0.267	0.287	0.295	0.296	0.276	0.311	0.294	0.330	0.360

Measurement tolerance:±0.02

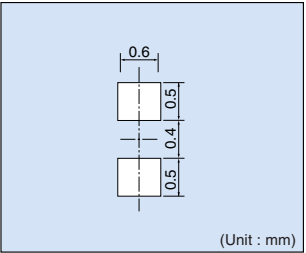
Dimensions (Unit:mm)



Directivity (Typ.)

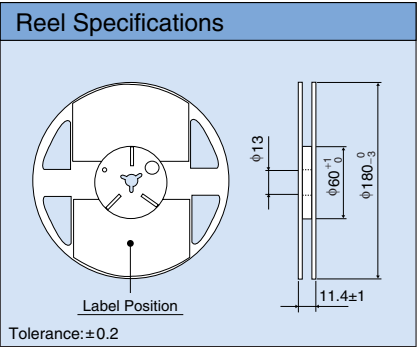
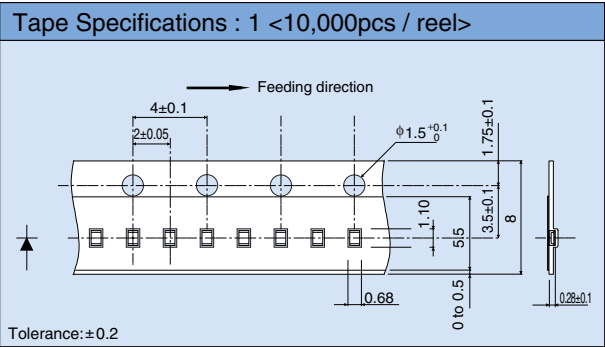


Recommended Pad Layout



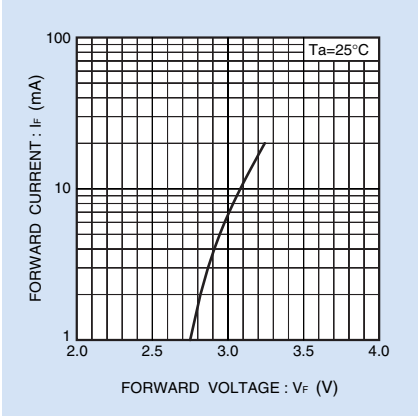
The recommended thickness of the screen mask for soldering is between 80 and 130μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit : mm)



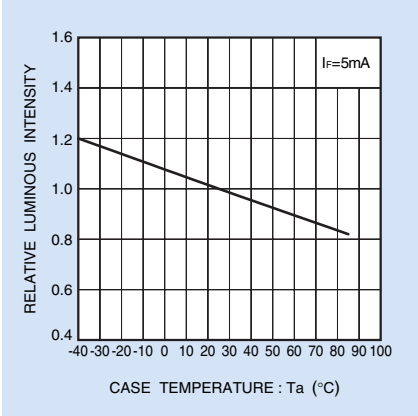
■Electrical Characteristic Curves

Forward Current - Forward Voltage



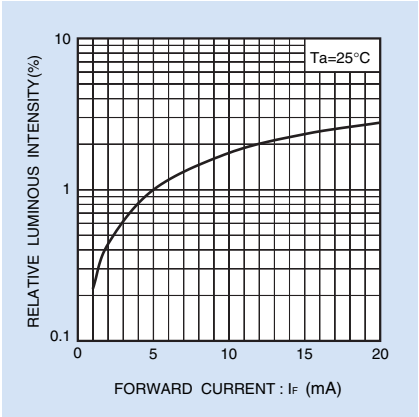
— SMLP12WBC7W

Relative Luminous Intensity - Case Temperature



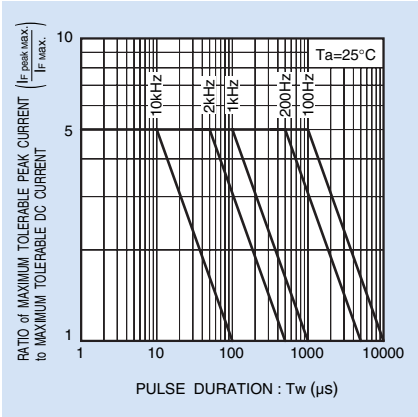
— SMLP12WBC7W

Relative Luminous Intensity - Forward Current



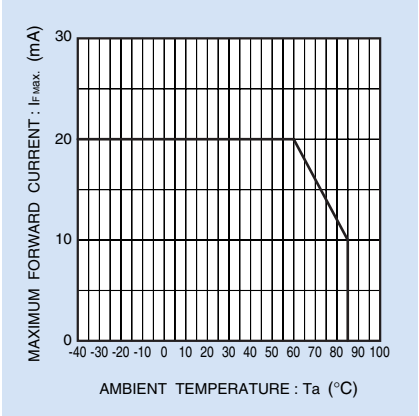
— SMLP12WBC7W

Ratio of Maximum Tolerable Peak Current - Pulse Duration



— SMLP12WBC7W

Derating



— SMLP12WBC7W

Notes

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