

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



SML-01 * Series

Emitting Color	Blue			Green			Yellow			Orange			Red		
Material	InGaN on SiC						AlGaInP on GaAs								
Package Size(mm)															
Part No.	SML012BC4T	SML012BCT	SML013BDT	SML012EC4T	SML012ECT	SML-012PT (A)	SML-011YT	SML-012YT	SML-012WT (A)	SML-011DT	SML-012DT	SML-011UT	SML-012UT	SML-012VT (A)	SML-013UT

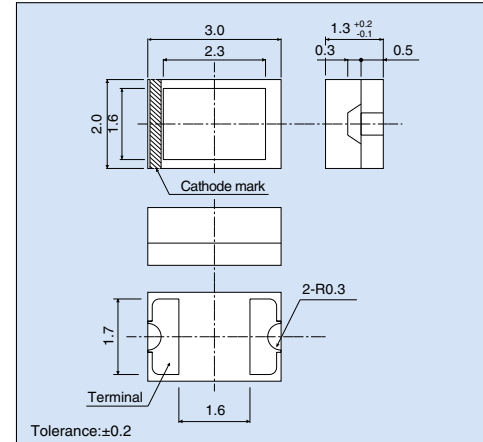
note) "-" will be taken out for emitting color B/E series.

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)
SML012BC4T	Blue	84	20	100		-30 to +85	
SML012BCT		78					
SML013BDT	Green	84	25	60	5	-40 to +100	
SML012EC4T		62					
SML012ECT	Yellow		30	100		-40 to +100	
SML-012PT (A)							
SML-011YT	Orange	75	30	100		-40 to +100	
SML-012YT							
SML-012WT (A)	Red					-30 to +85	
SML-011DT							
SML-012DT							
SML-011UT							
SML-012UT							
SML-012VT (A)							
SML-013UT							

*:Duty ≤1/10,1kHz.

Dimensions (Unit:mm)



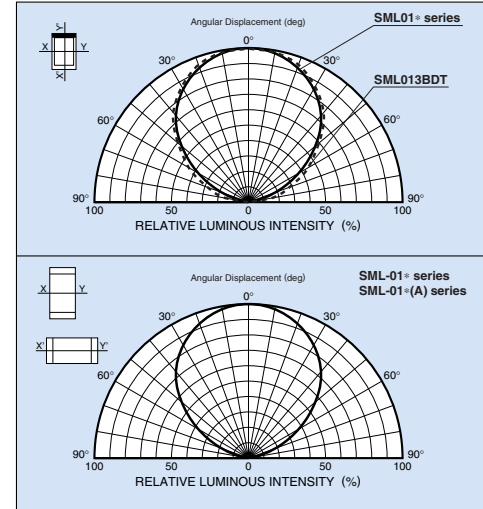
Tolerance:±0.2

Electrical Optical Characteristics (Ta=25°C)

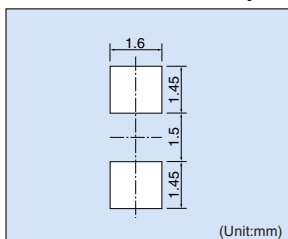
Part No.	Resin Color	Forward voltage VF		Reverse current IR		Light wavelength		Brightness Iv		
		Typ. (V)	IF (mA)	Max. (μA)	VR (V)	Peak λp (nm)	Half-wave Δλ (nm)	Min. (mcd)	Typ. (mcd)	IF (mA)
SML012BC4T	Transparent Colorless	3.2	20	100	5	468	26	22	36	20
SML012BCT		3.3				36	100			
SML013BDT		3.2				90	250			
SML012EC4T		3.2				56	140			
SML012ECT		3.3				518	35	140	360	
SML-012PT (A)		2.1				565	-	9.0	18	
SML-011YT		2.0				22	63	20	20	
SML-012YT		590				15	20	36	100	
SML-012WT (A)		-				140	280			
SML-011DT		2.0				22	63	10	20	
SML-012DT		611				17	36	100		
SML-011UT		630				18	22	63		
SML-012UT	639	-	36	100						
SML-012VT (A)	639	-	35.5	71						
SML-013UT	20*1	620*2	-	20*1	90	220	20*1			

*1:Pulse width : 30ms *2: Dominant λD light wavelength

Directivity (Typ.)

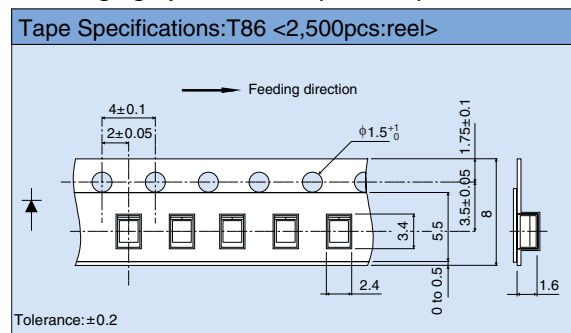


Recommended Pad Layout



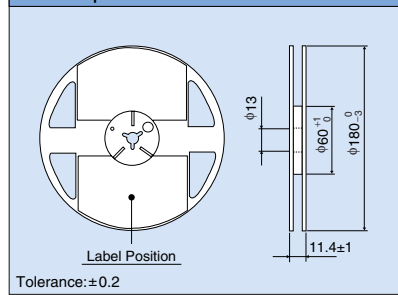
The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)



Tolerance:±0.2

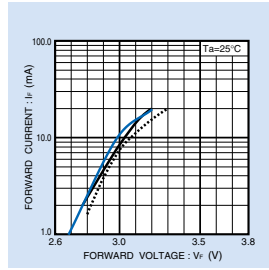
Reel Specifications



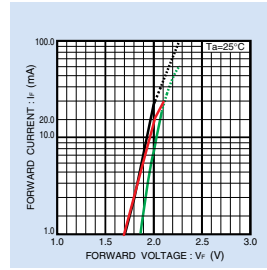
Tolerance:±0.2

Electrical Characteristic Curves

Forward Current - Forward Voltage

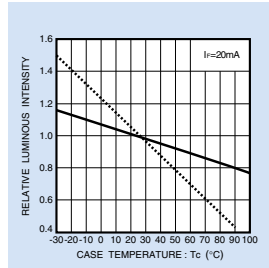


- SML012BC4T
- SML012EC4T
- SML013BDT
- SML012BCT
- SML012ECT



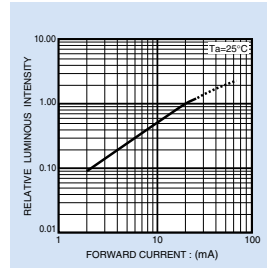
- SML-011YT
- SML-012YT
- SML-012WT(A)
- SML-011DT
- SML-012DT
- SML-011UT
- SML-012UT
- SML-012VT(A)
- SML-012PT(A)
- SML-013UT

Relative Luminous Intensity - Case Temperature



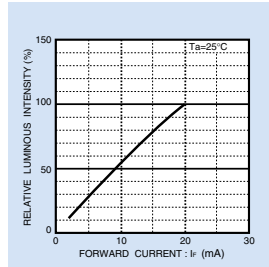
- SML012BC4T
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- SML-012WT(A)
- SML-011DT
- SML-012DT
- SML-011UT
- SML-012UT
- SML-012VT(A)
- SML-013UT

Relative Luminous Intensity - Forward Current

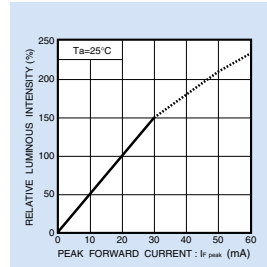


- SML-012PT(A)

Relative Luminous Intensity - Forward Current

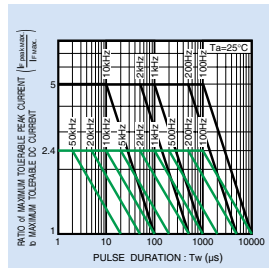


- SML012BC4T
- SML012BCT
- SML012EC4T
- SML012ECT
- SML013BDT

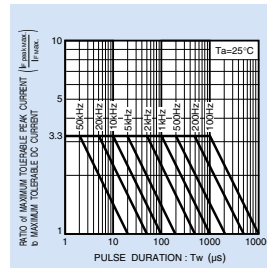


- SML-011YT
- SML-012YT
- SML-012WT(A)
- SML-011DT
- SML-012DT
- SML-011UT
- SML-012UT
- SML-012VT(A)
- SML-013UT

Ratio of Maximum Tolerable Peak Current - Pulse Duration

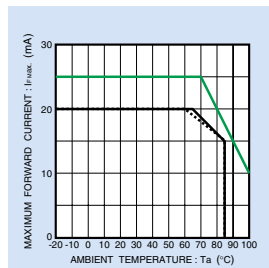


- SML012BC4T
- SML012BCT
- SML012EC4T
- SML012ECT
- SML013BDT
- SML-012PT(A)

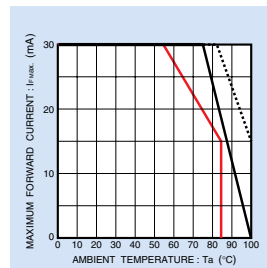


- SML-011YT
- SML-012YT
- SML-012WT(A)
- SML-011DT
- SML-012DT
- SML-011UT
- SML-012UT
- SML-012VT(A)
- SML-013UT

Derating



- SML012BC4T
- SML012BCT
- SML012EC4T
- SML012ECT
- SML-012PT(A)
- SML013BDT



- SML-011YT
- SML-012YT
- SML-011DT
- SML-012DT
- SML-011UT
- SML-012UT
- SML-012WT(A)
- SML-012VT(A)
- SML-013UT

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