

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

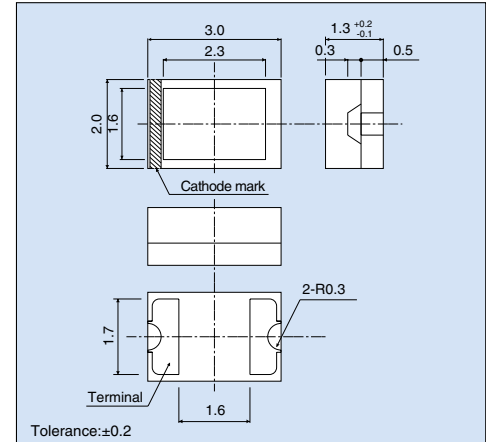
note) "-" will be taken out for emitting color B/E series.

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		-30 to +85	
SML012EC4T		62					
SML012ECT	Yellow				5	-40 to +100	
SML-012PT (A)							
SML-011YT							
SML-012YT	Orange	75	30	100		-40 to +100	
SML-012WT (A)							
SML-011DT	Red					-30 to +85	
SML-012DT							
SML-013UT							

*:Duty ≤1/10,1kHz.

Dimensions (Unit:mm)

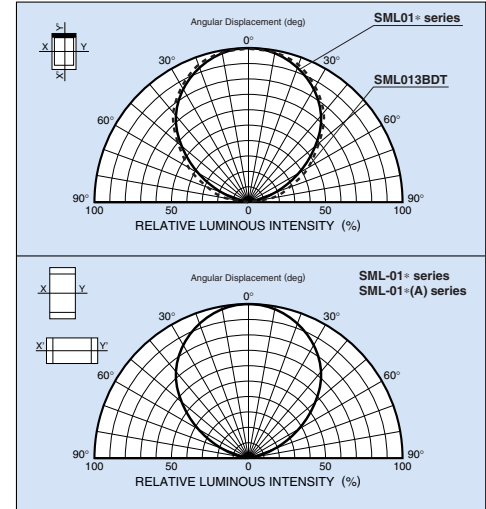


Electrical Optical Characteristics (Ta=25°C)

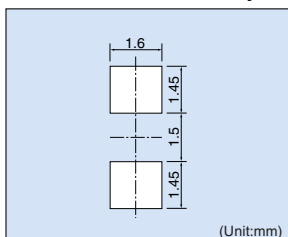
Part No.	Resin Color	Forward voltage VF		Reverse current IR		Light wavelength		Brightness Iv			
		Typ. (V)	IF (mA)	Max. (μA)	VR (V)	Peak λp (nm)	Half-wave Δλ (nm)	Min. (mcd)	Typ. (mcd)	IF (mA)	
SML012BC4T	Transparent Colorless	3.2	20	100	5	468	26	22	36	20	
SML012BCT		3.3						36	100		
SML013BDT		3.2						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		36						100			
SML-012WT (A)		140						280			
SML-011DT		22						63			
SML-012DT		36						100			
SML-011UT		22						63			
SML-012UT	36	100									
SML-012VT (A)	35.5	71									
SML-013UT	620*2	-	20*1	90	220	20*1					

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

Directivity (Typ.)

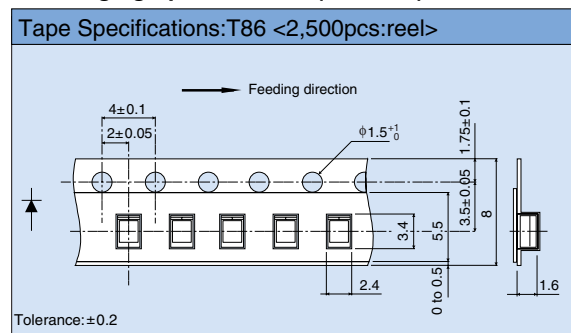


Recommended Pad Layout

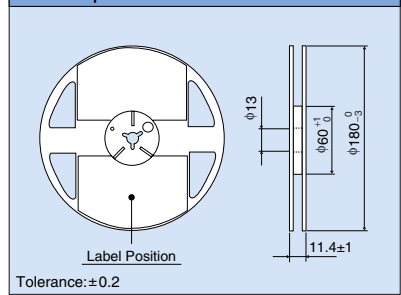


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

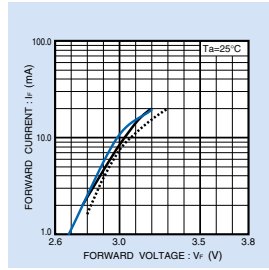


Reel Specifications

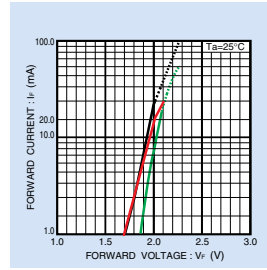


Electrical Characteristic Curves

Forward Current - Forward Voltage

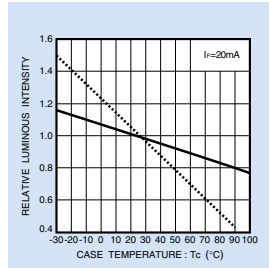


- SML012BC4T
- SML012EC4T
- SML013BDT
- SML012BCT
- SML012ECT



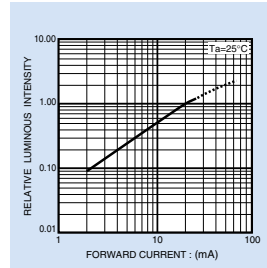
- SML-011YT
- SML-012YT
- SML-012WT(A)
- SML-011DT
- SML-012DT
- SML-011UT
- SML-012UT
- SML-012VT(A)
- SML-012PT(A)
- SML-013UT

Relative Luminous Intensity - Case Temperature



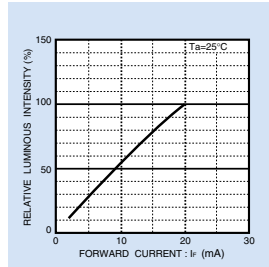
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- SML-012DT
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- SML-012UT
- SML-012VT(A)
- SML-013UT

Relative Luminous Intensity - Forward Current

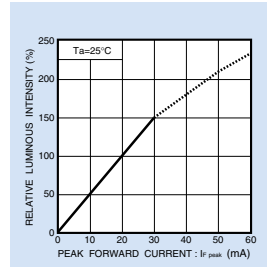


- SML-012PT(A)

Relative Luminous Intensity - Forward Current

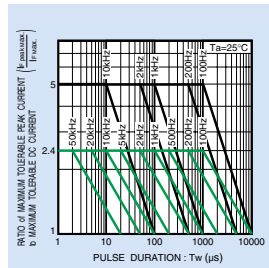


- SML012BC4T
- SML012BCT
- SML012EC4T
- SML012ECT
- SML013BDT

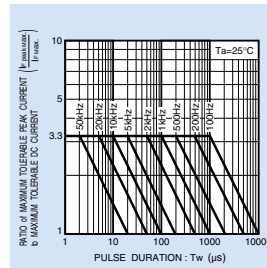


- SML-011YT
- SML-012YT
- SML-012WT(A)
- SML-011DT
- SML-012DT
- SML-011UT
- SML-012UT
- SML-012VT(A)
- SML-013UT

Ratio of Maximum Tolerable Peak Current - Pulse Duration

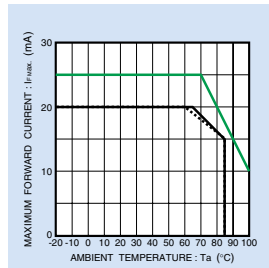


- SML012BC4T
- SML012BCT
- SML012EC4T
- SML012ECT
- SML013BDT
- SML-012PT(A)

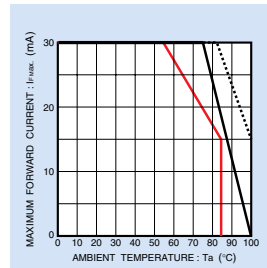


- SML-011YT
- SML-012YT
- SML-012WT(A)
- SML-011DT
- SML-012DT
- SML-011UT
- SML-012UT
- SML-012VT(A)
- SML-013UT

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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