

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)															
 3020(1208) 3.0×2.0(t=1.3)															
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

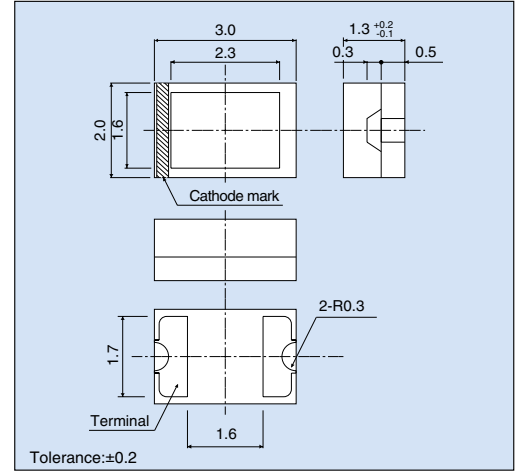
note) "*" will be taken out for emitting color B/E series.

Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	Power dissipation Pb (mW)	Forward current IF (mA)	Peak forward current I _{FP} * (mA)	Reverse voltage VR (V)	Operating temperature Topr (°C)	Storage temperature Tstg (°C)
SML012BC4T	Blue	84	20	100		-30 to +85	
SML012BCT		78					
SML013BDT		78					
SML012EC4T	Green	84	25	60		-30 to +85	
SML012ECT		62					
SML-012PT (A)							
SML-011YT	Yellow				5	-40 to +100	
SML-012YT							
SML-012WT (A)							
SML-011DT	Orange	75	30	100		-40 to +100	
SML-012DT							
SML-011UT	Red					-30 to +85	
SML-012UT							
SML-012VT (A)							
SML-013UT							

*: Duty ≤ 1/10, 1kHz.

Dimensions (Unit:mm)



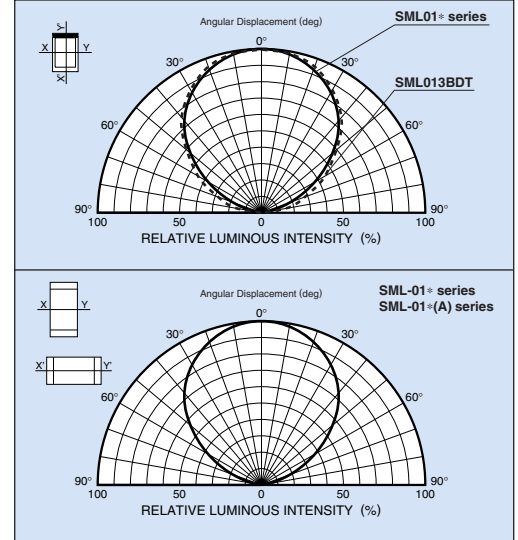
Electrical Optical Characteristics (Ta=25°C)

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	
SML012BCT		3.3				468	26	36	100	
SML013BDT		3.2				468	26	90	250	
SML012EC4T		3.2				523	36	56	140	
SML012ECT		3.3				518	35	140	360	
SML-012PT (A)	Transparent Colorless	2.1	20	10	5	565	—	9.0	18	
SML-011YT						590	15	22	63	20
SML-012YT						590	—	36	100	
SML-012WT (A)						590	—	140	280	
SML-011DT						611	17	22	63	
SML-012DT		2.0				611	17	36	100	
SML-011UT						630	18	22	63	
SML-012UT						630	—	36	100	
SML-012VT (A)						639	—	35.5	71	
SML-013UT						620*2	—	90	220	20*1

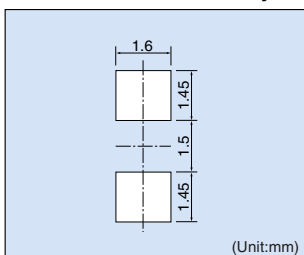
*1: Pulse width : 30ms

*2 : Dominant λD light wavelength

Directivity (Typ.)

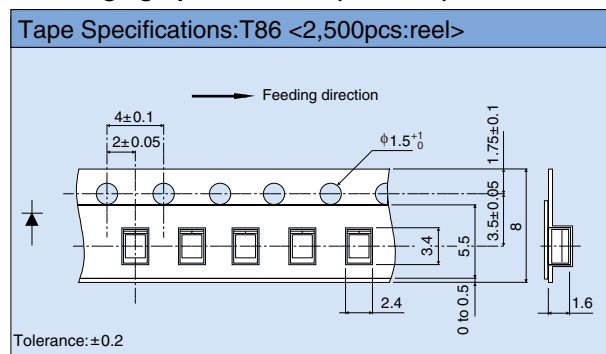


Recommended Pad Layout

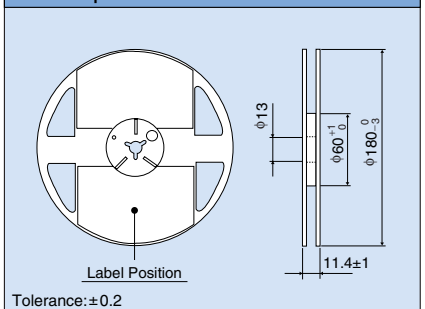


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

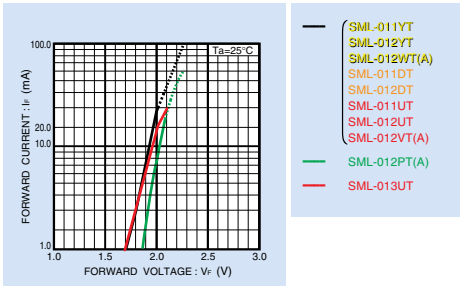
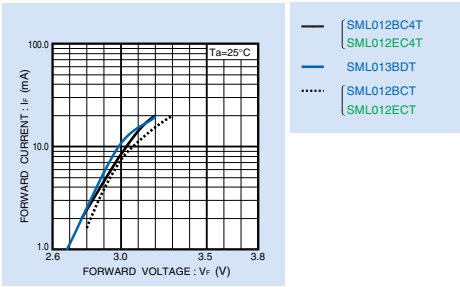


Reel Specifications

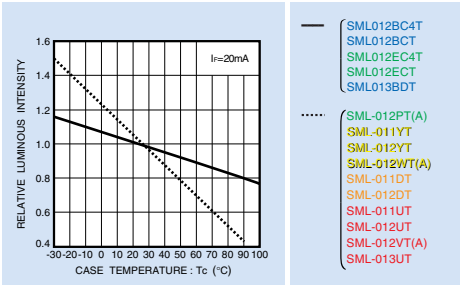


■Electrical Characteristic Curves

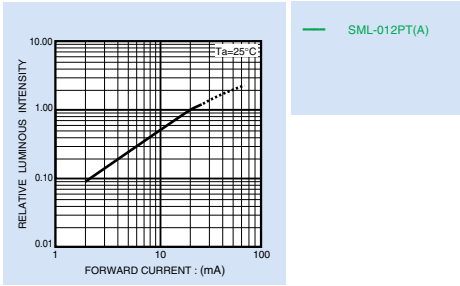
Forward Current - Forward Voltage



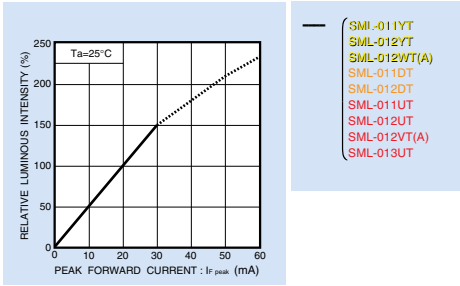
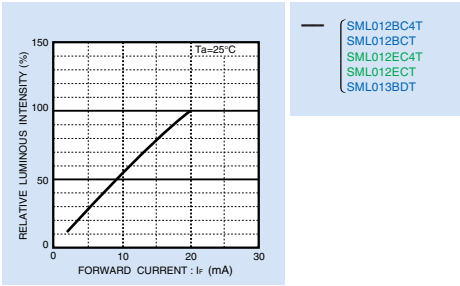
Relative Luminous Intensity - Case Temperature



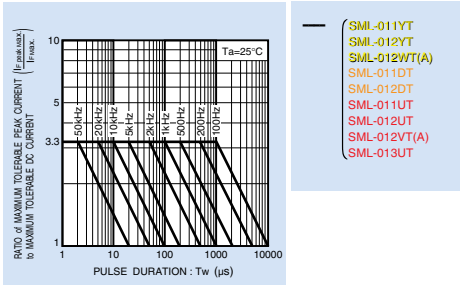
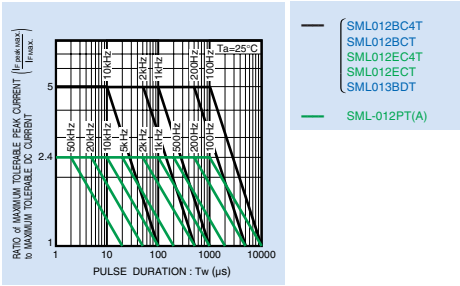
Relative Luminous Intensity - Forward Current



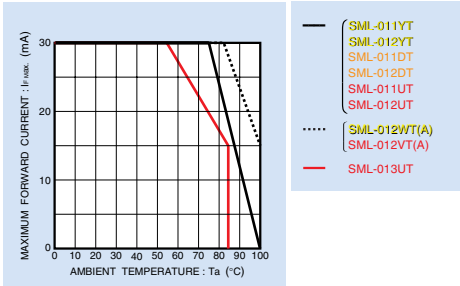
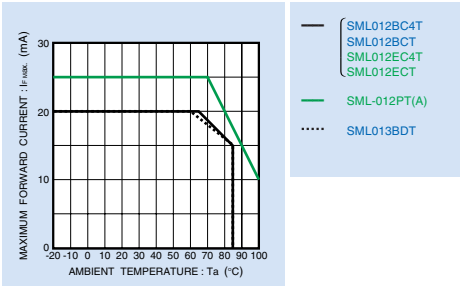
Relative Luminous Intensity - Forward Current



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating



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