

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

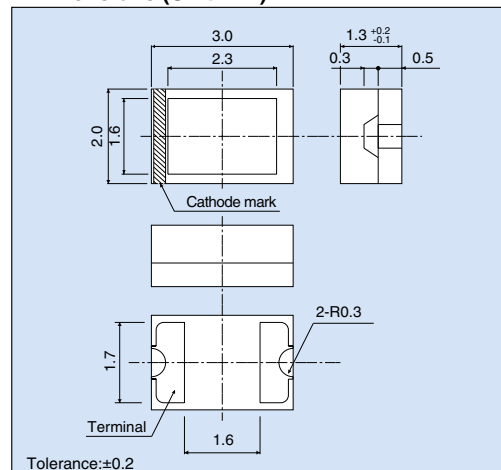
note) "*" will be taken out for emitting color B/E series.

Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	Power dissipation 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)
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						
SML-012UT							
SML-012VT (A)							
SML-013UT						-30 to +85	

*: Duty ≤ 1/10, 1kHz.

Dimensions (Unit:mm)



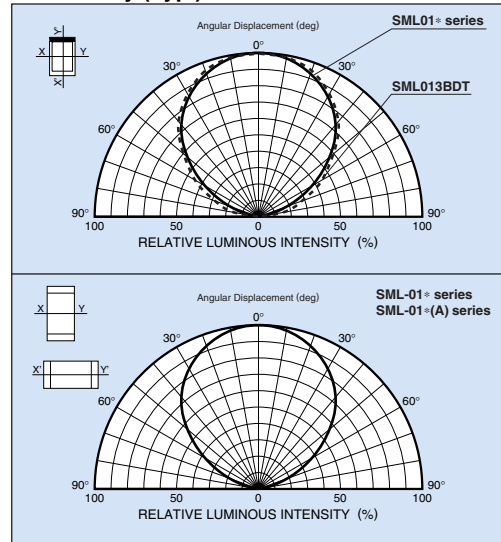
Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage V _F		Reverse current I _R		Light wavelength Peak λ _p Half-wave Δλ		Brightness I _v		
		Typ. (V)	I _F (mA)	Max. (μA)	V _R (V)	Typ. (nm)	Typ. (nm)	I _F (mA)	Min. (mcd)	Typ. (mcd)
SML012BC4T	Transparent Colorless	3.2	20	100	5	468	26	20	22	36
SML012BCT		3.3							36	100
SML013BDT		3.2							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	590	15	20	9.0	18
SML-011YT									22	63
SML-012YT									36	100
SML-012WT (A)									140	280
SML-011DT						611	17		22	63
SML-012DT		2.0				630	18		36	100
SML-011UT									22	63
SML-012UT									36	100
SML-012VT (A)						639	—		35.5	71
SML-013UT						620 ^{*2}	—		90	220

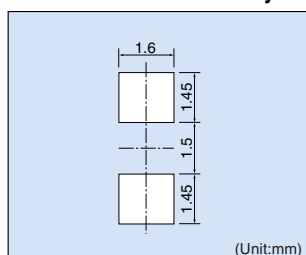
*1: Pulse width : 30ms

*2 : Dominant λD light wavelength

Directivity (Typ.)

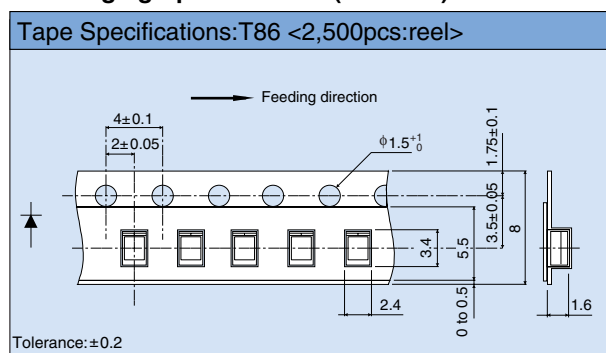


Recommended Pad Layout

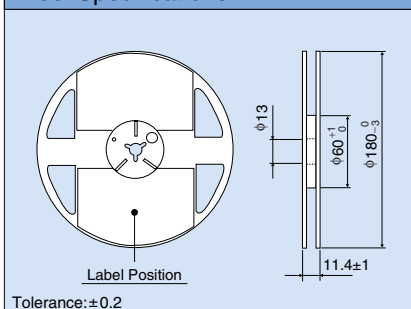


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

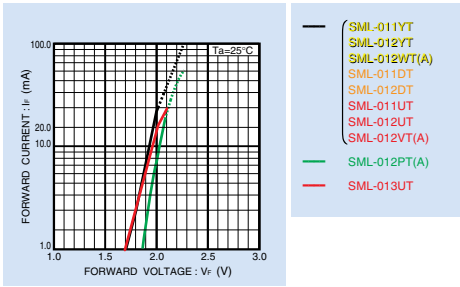
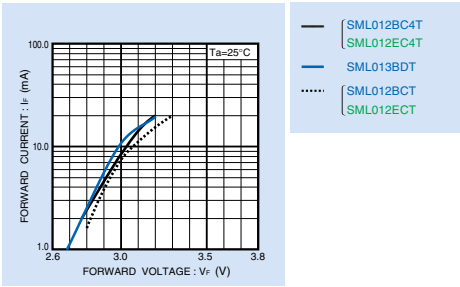


Reel Specifications

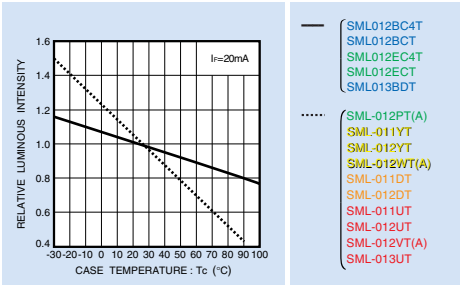


■Electrical Characteristic Curves

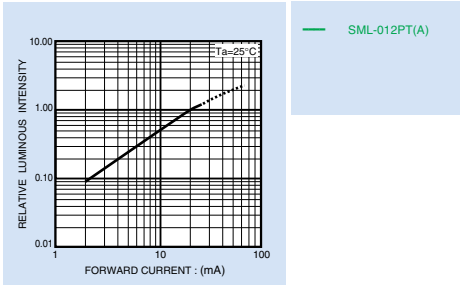
Forward Current - Forward Voltage



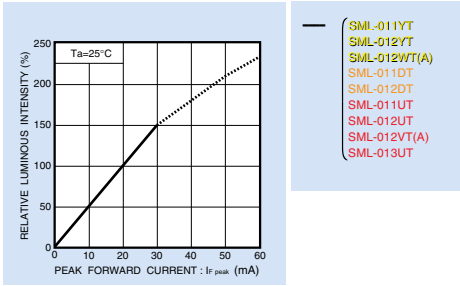
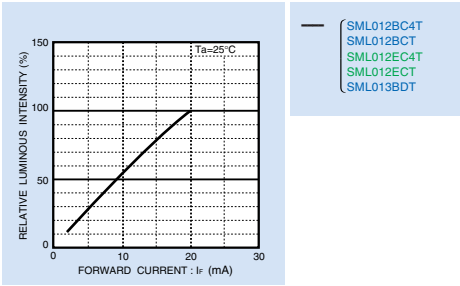
Relative Luminous Intensity - Case Temperature



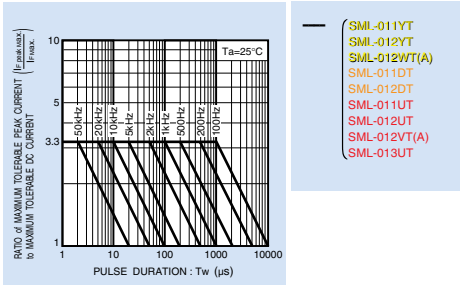
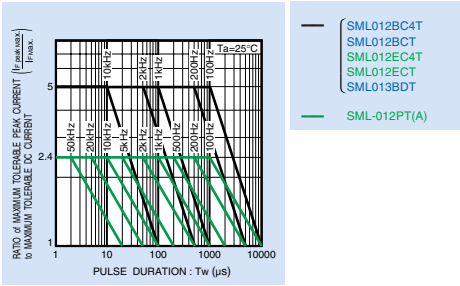
Relative Luminous Intensity - Forward Current



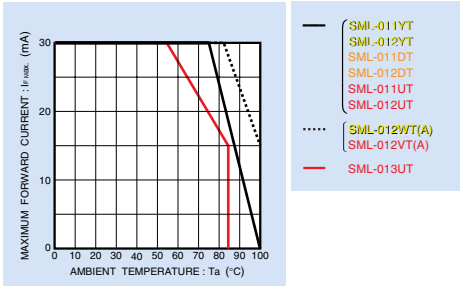
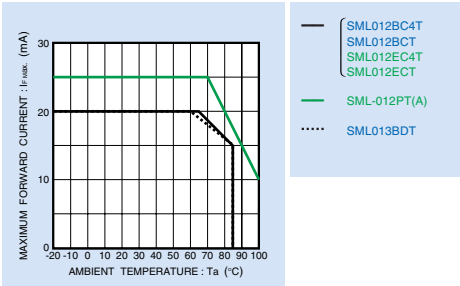
Relative Luminous Intensity - Forward Current



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating



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