

Chip LEDs with Reflector 1208<3.0×2.0 t=1.3mm> 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	SML012EC4T	SML012ECT	SML-012PT (A)	SML-011YT	SML-012YT	SML-012WT (A)	SML-011DT	SML-012DT	SML-011UT	SML-012UT	SML-012VT (A)

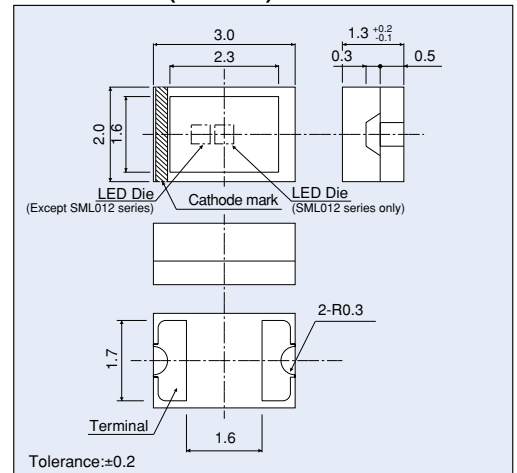
note) "-" will be taken out for emitting color B/E series.

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							
SML012EC4T	Green	62	25	60		-30 to +85	
SML012ECT							
SML-012PT (A)	Yellow				5	-40 to +100	
SML-011YT							
SML-012YT							
SML-012WT (A)	Orange	75	30	100		-40 to +100	
SML-011DT							
SML-012DT	Red					-40 to +100	
SML-011UT							
SML-012UT							
SML-012VT (A)							

※:Duty ≤1/10,1kHz.

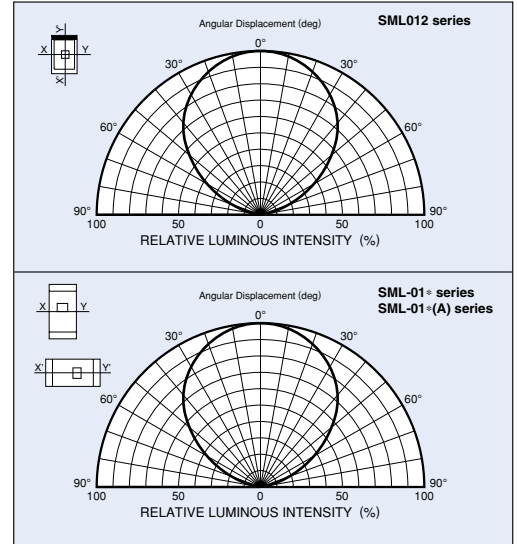
Dimensions (Unit:mm)



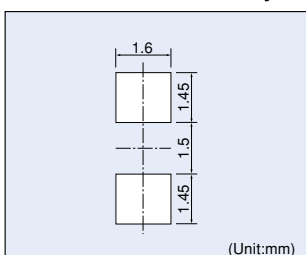
Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage V _F		Reverse current I _R		Light wavelength		Brightness I _v			
		Typ. (V)	I _F (mA)	Max. (μA)	V _R (V)	Peak λ _p Typ. (nm)	Half-wave Δλ Typ. (nm)	I _F (mA)	Min. (mcd)	Typ. (mcd)	I _F (mA)
SML012BC4T	Transparent Colorless	3.2	20	100	5	468	26	20	22	36	20
SML012BCT		3.3				36	100				
SML012EC4T		3.2				523	36		56	140	
SML012ECT		3.3				518	35		140	360	
SML-012PT (A)		2.1				10	565		—	9.0	
SML-011YT	Colorless	2.0	10	5	611	17	20	22	63	20	
SML-012YT								36	100		
SML-012WT (A)								140	280		
SML-011DT								22	63		
SML-012DT								36	100		
SML-011UT	630	18	36	100	639	—	20	22	63		
SML-012UT								36	100		
SML-012VT (A)								35.5	71		

Directivity (Typ.)

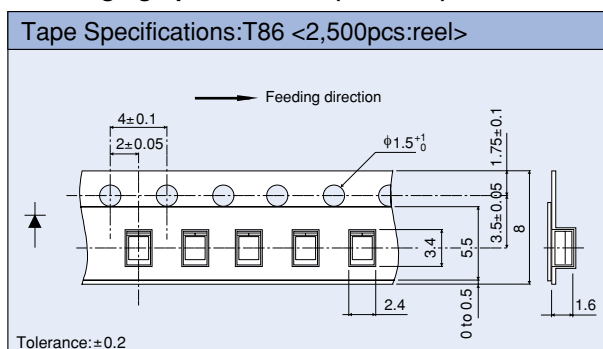


Recommended Pad Layout

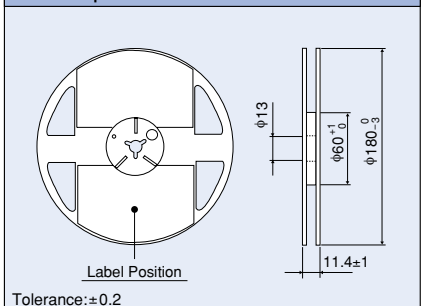


The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit:mm)

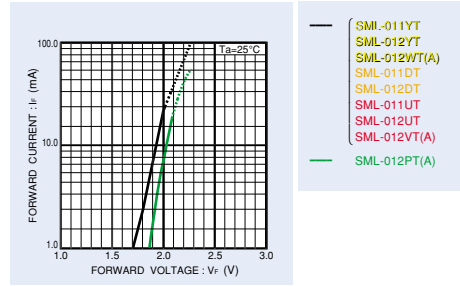
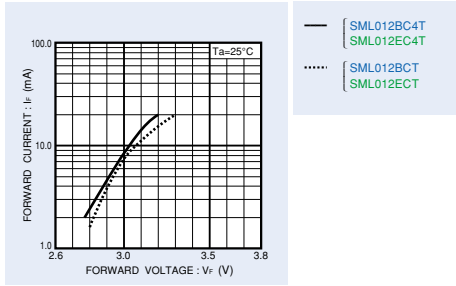


Reel Specifications

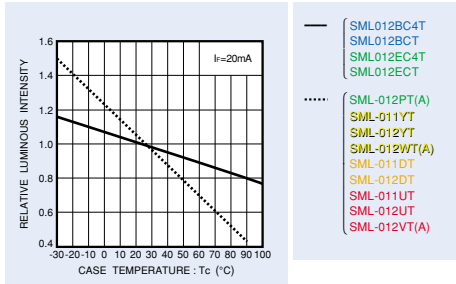


Electrical Characteristic Curves

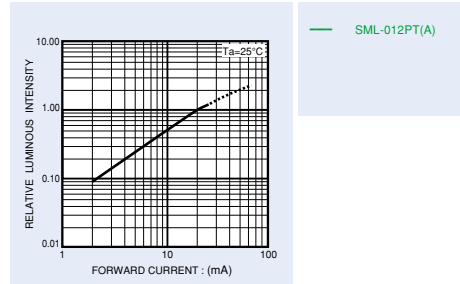
Forward Current - Forward Voltage



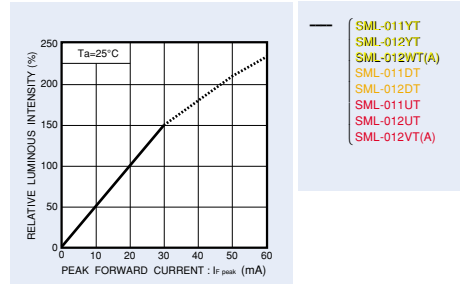
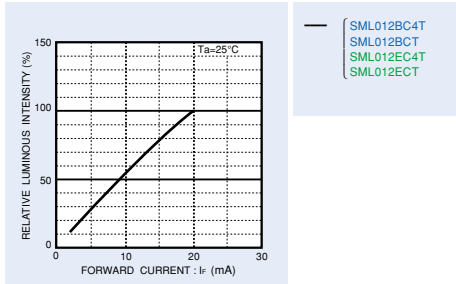
Relative Luminous Intensity - Case Temperature



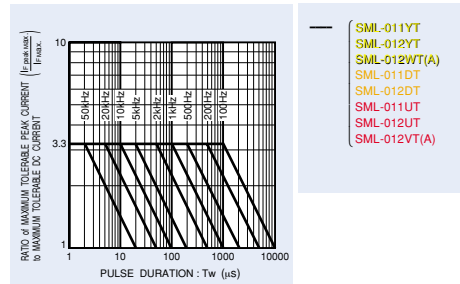
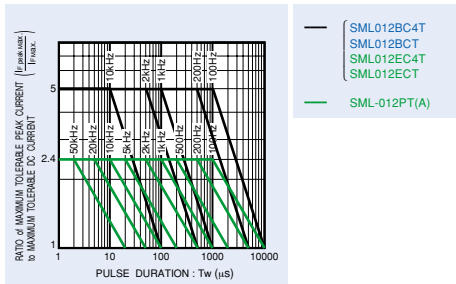
Relative Luminous Intensity - Forward Current



Relative Luminous Intensity - Forward Current



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating

