

High Brightness Type Chip LEDs with reflector

SML-01 * Series

Package Size (mm)	Blue			Green		Yellow		Orange		Red	
	GaN on SiC	InGaN on SiC					AlGaInP on GaAs				
	428nm	468nm			525nm		590nm		611nm		630nm
3216 (1206) 3.0×2.0 t=1.3											
	SML010BAT	SML011BBT	SML012BCT	SML011EBT	SML012ECT	SML-011YT	SML-012YT	SML-011DT	SML-012DT	SML-011UT	SML-012UT

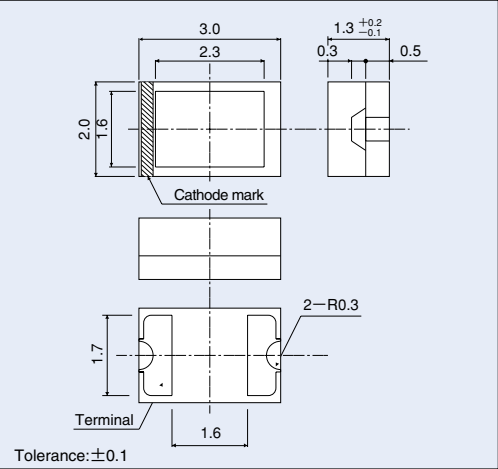
Note) "-" will be taken out for emitting color B/E series.

Absolute Maximum Ratings (Ta=25℃)

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)	Stotage temperature T _{stg} (°C)				
SML010BAT	Blue	94	20	70		-30 to +85	-40 to +100				
SML011BBT		84		100							
SML012BCT											
SML011EBT	Green				5						
SML012ECT											
SML-011YT	Yellow										
SML-012YT											
SML-011DT	Orange	75	30	100		-40 to +100	-40 to +100				
SML-012DT											
SML-011UT	Red										
SML-012UT											

* I_{FP} measured under duty ≤1/10,1kHz.

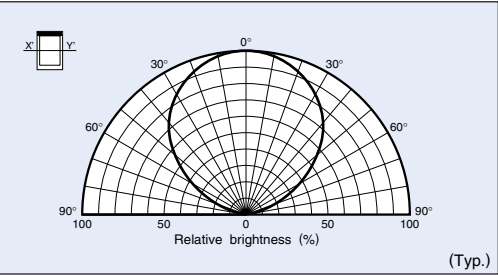
External Dimensions (Unit : mm)



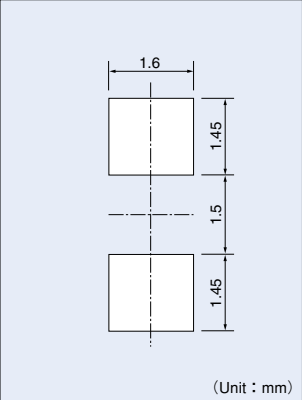
Electrical Optical Characteristics (Ta=25℃)

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	Half-wave Δλ	I _F (mA)	Min. (mcd)	Typ. (mcd)	I _F (mA)	
						Typ. (nm)	Typ. (nm)					
SML010BAT	Transparent Clear	3.8		100		428	65	20	3.6	9	20	
SML011BBT		3.5					468		26	22		36
SML012BCT							36		100			
SML011EBT		3.8					523		36	56		140
SML012ECT			518	35	140		360					
SML-011YT		20		5		590	15	22	63			
SML-012YT						36	100					
SML-011DT		2.0		10		611	17	22	63			
SML-012DT						36	140					
SML-011UT						630	18	22	63			
SML-012UT	36							100				

Directivity

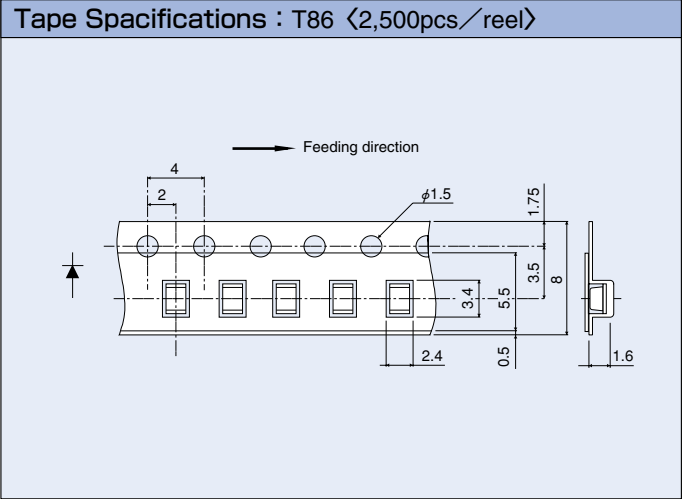


Recommended Pad Layout

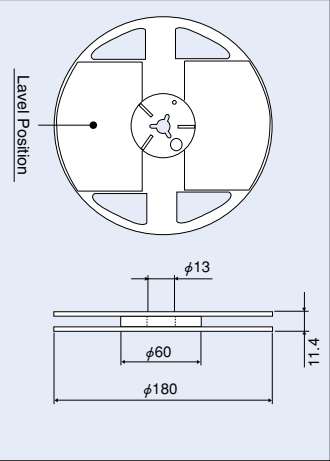


The recommended thickness of the screen mask for soldering is between 100 and 200 μm. The hole size of the screen mask should be the same as the recommended land pattern or smaller.

Packaging Specifications (Unit : mm)

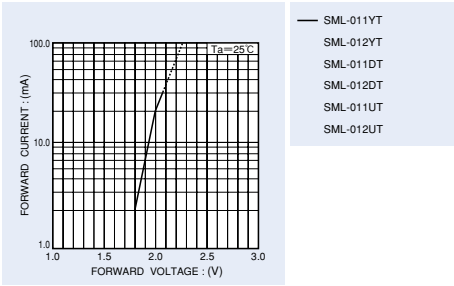
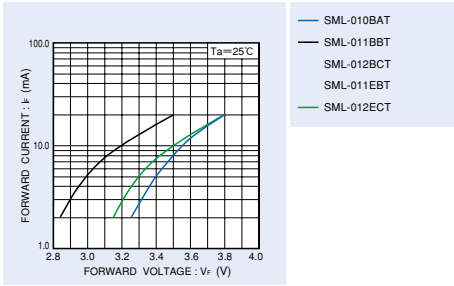


Reel Specifications

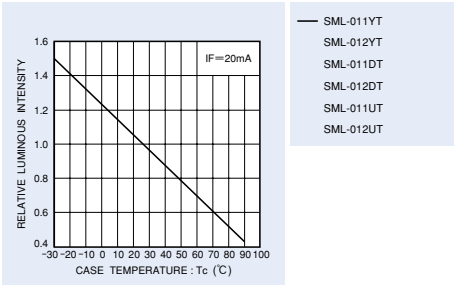
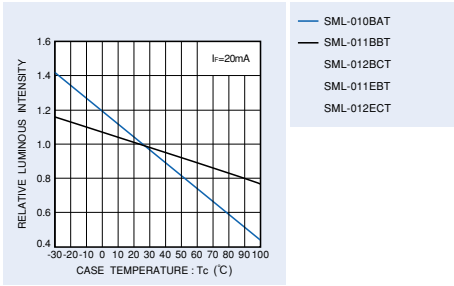


Electrical Characteristic Curves

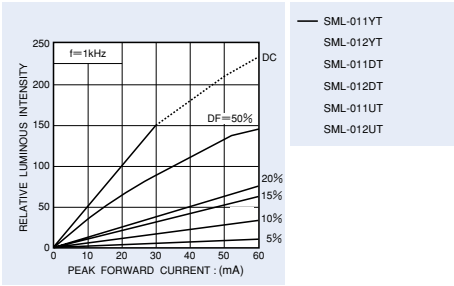
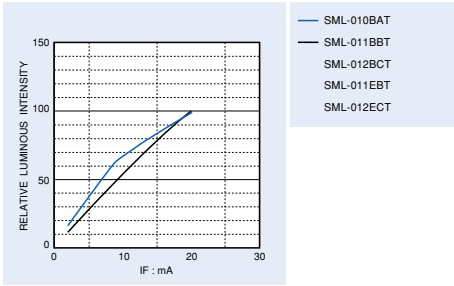
Forward Current - Forward Voltage



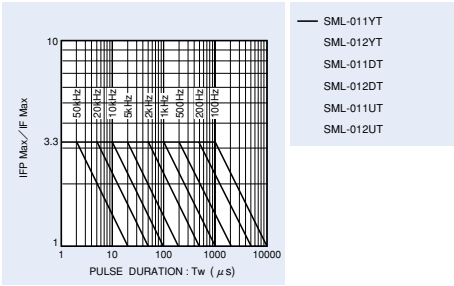
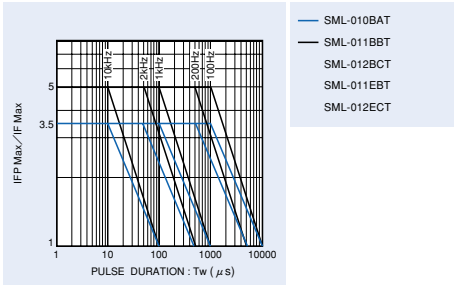
Relative Luminous Intensity - Case Temperature



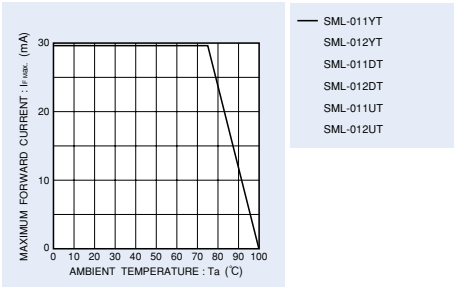
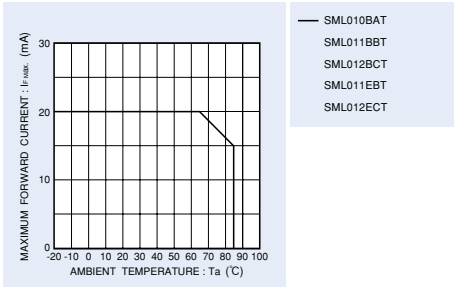
Relative Luminous Intensity - Forward Current



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating



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