

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

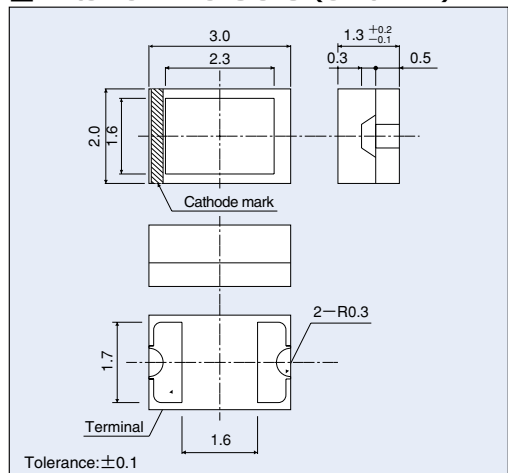
Note) "-" will be taken out for emitting color B/E series.

Absolute Maximum Ratings (Ta=25°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)	Stotage temperature T _{stg} (°C)
SML010BAT	Blue	94	20	70	5	-30 to +85	-40 to +100
SML011BBT		84		100			
SML012BCT							
SML011EBT	Green	75	30	100	5	-40 to +100	-40 to +100
SML012ECT							
SML-011YT	Yellow						
SML-012YT	Orange	75	30	100	5	-40 to +100	-40 to +100
SML-011DT							
SML-012DT							
SML-011UT	Red						
SML-012UT							

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

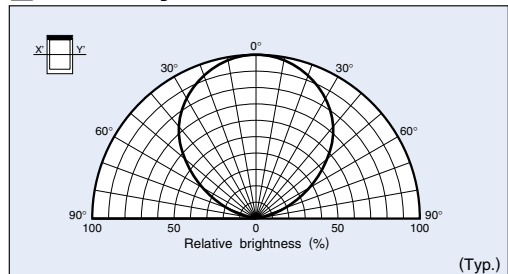
External Dimensions (Unit : mm)



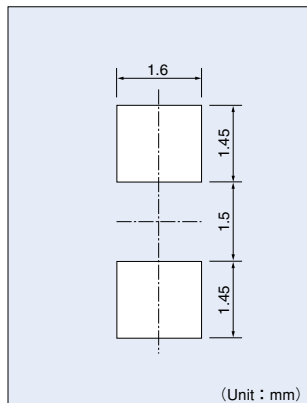
Electrical Optical Characteristics (Ta=25°C)

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

Directivity

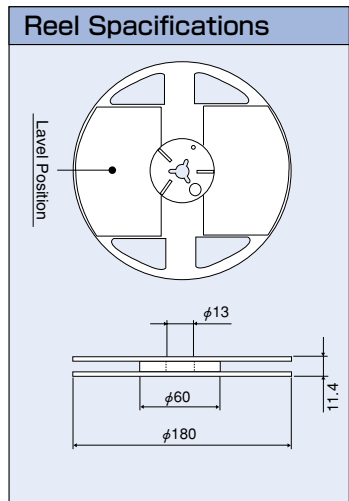
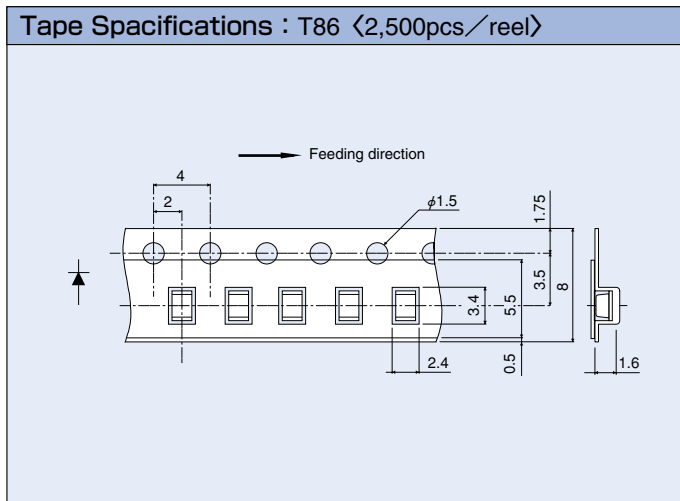


Recommended Pad Layout



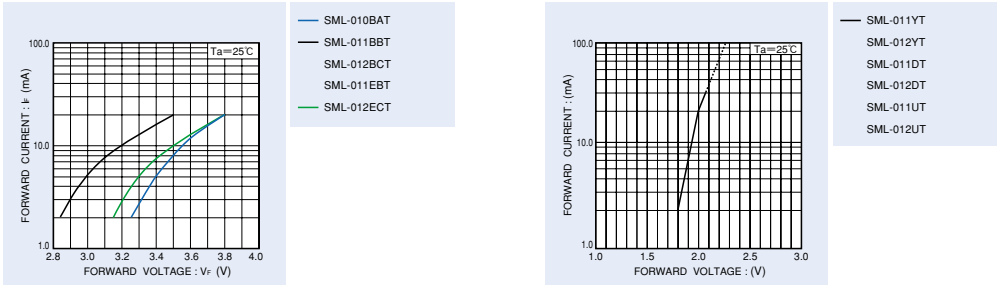
The recommended thickness of the screen mask for soldering is between 100 and 200μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit : mm)

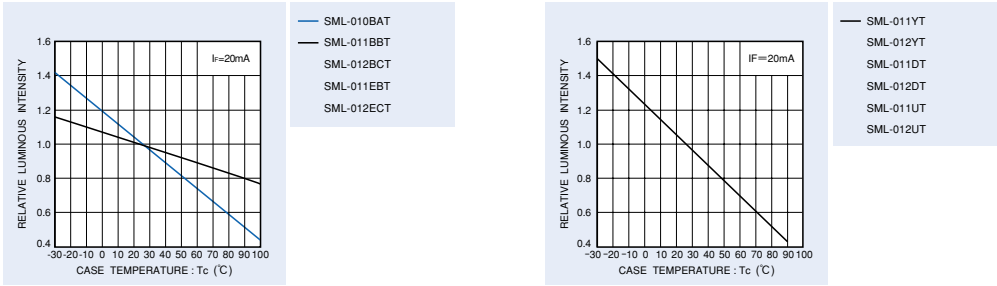


Electrical Characteristic Curves

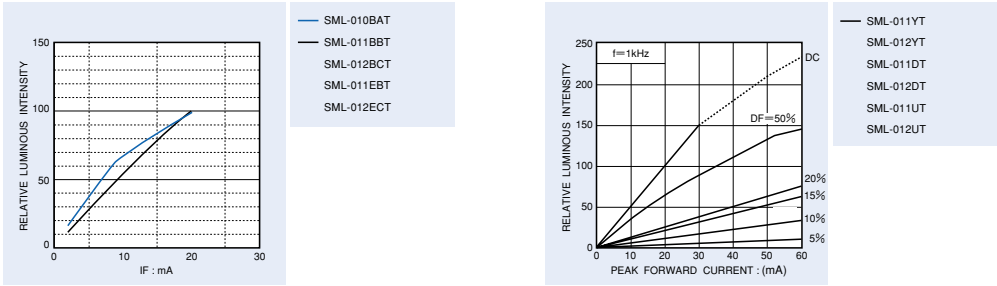
Forward Current - Forward Voltage



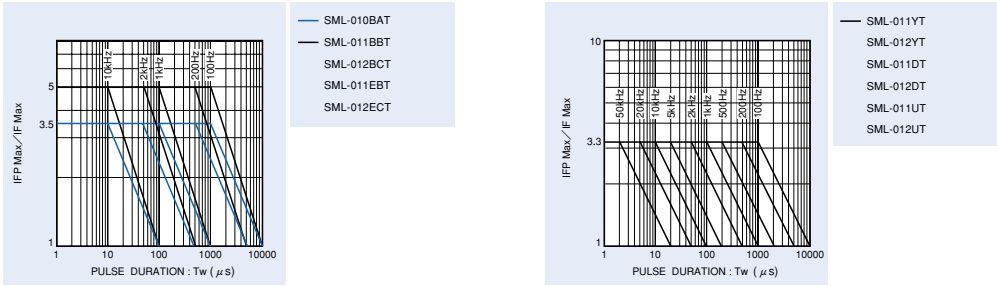
Relative Luminous Intensity - Case Temperature



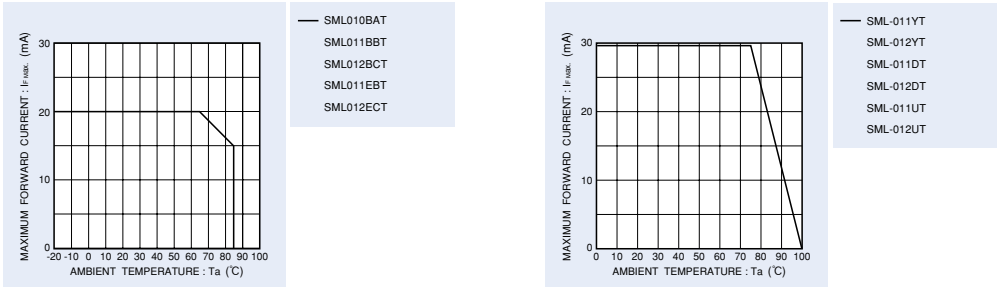
Relative Luminous Intensity - Forward Current



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating



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