

High Brightness Type Mini-molded chip LEDs

SML31 * Series

Package Size (mm)	Blue			Green	
	GaN on SiC	InGaN on SiC			
	428nm	468nm			525nm
1608 (0603) 1.6×0.8 t=0.8					
	SML310BAT	SML311BBT	SML312BCT	SML311EBT	SML312ECT

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

Absolute Maximum Ratings (Ta=25℃)

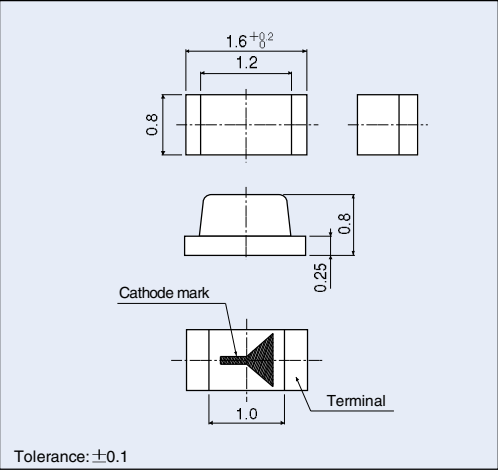
Part No.	Emitting color	Power dissipation P _D (mW)	Forward current I _F (mA)	Peak forward current * I _{FP} (mA)	Reverse voltage V _R (V)	Operating temperature T _{opr} (°C)	Stotage temperature T _{stg} (°C)				
SML310BAT	Blue	94	20	70	5	-30 to +85	-40 to +100				
SML311BBT		84		100							
SML312BCT											
SML311EBT	Green	84	20	100	5	-30 to +85	-40 to +100				
SML312ECT											

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

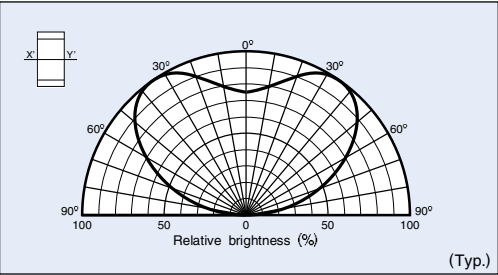
Electrical Optical Characteristics (Ta=25℃)

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)	I _F (mA)	
SML310BAT	Transparent Clear	3.8	20	100	5	428	65	20	1.4	3.6	20	
SML311BBT							14		22			
SML312BCT		3.5					468		26	22		63
SML311EBT							523		36	36		90
SML312ECT		3.8							518	36		90

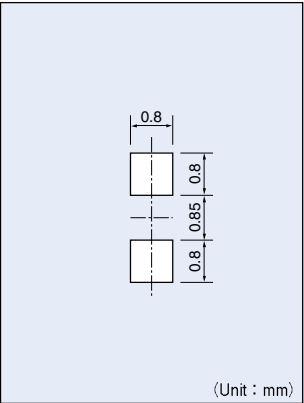
External Dimensions (Unit : mm)



Directivity

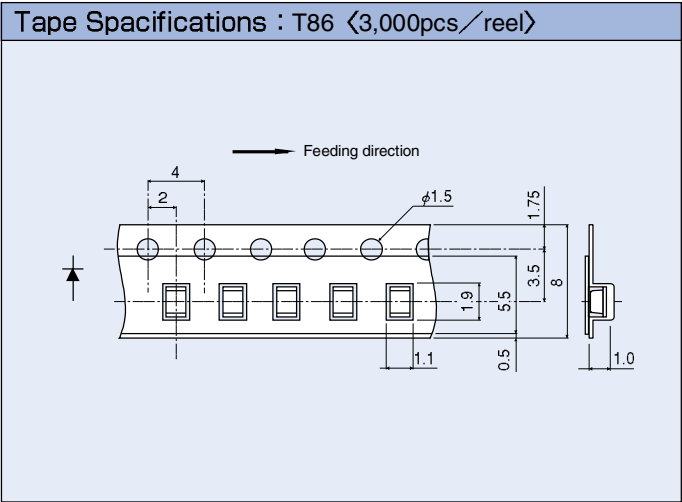


Recommended Pad Layout

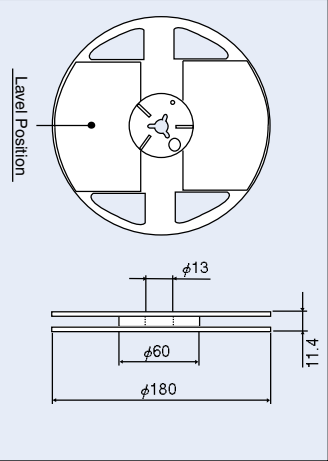


The recommended thickness of the screen mask for soldering is between 100 and 200μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

Packaging Specifications (Unit : mm)

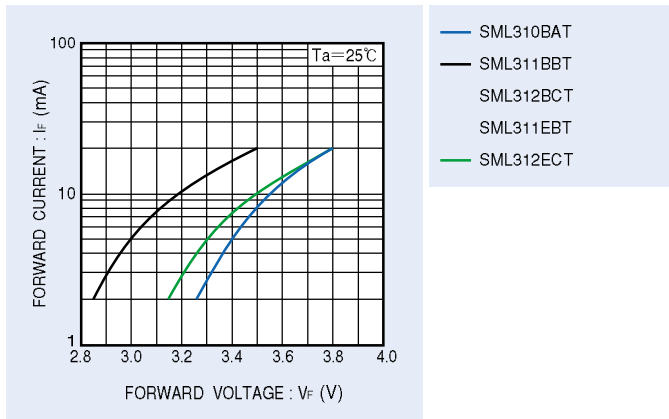


Reel Specifications

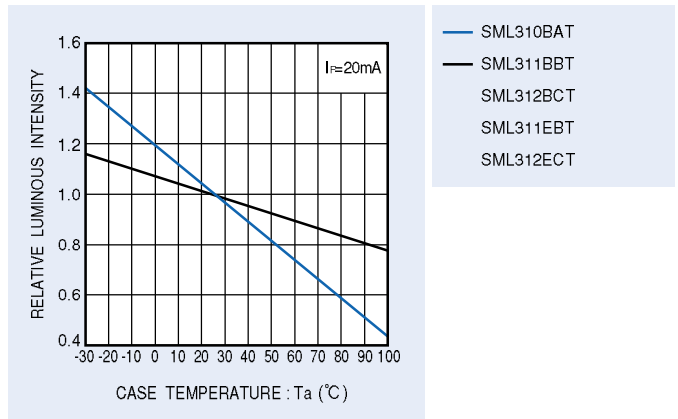


Electrical Characteristic Curves

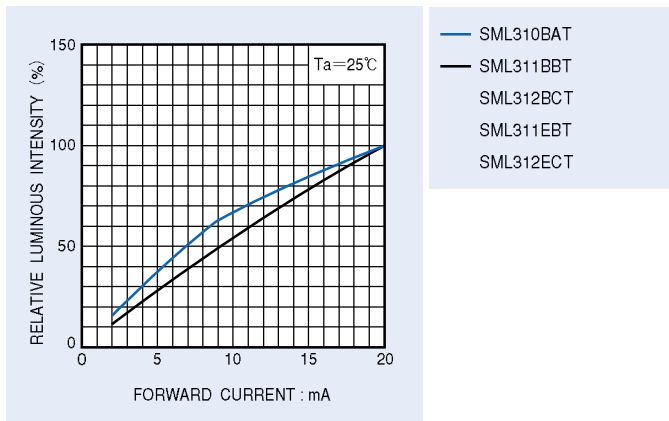
Forward Current - Forward Voltage



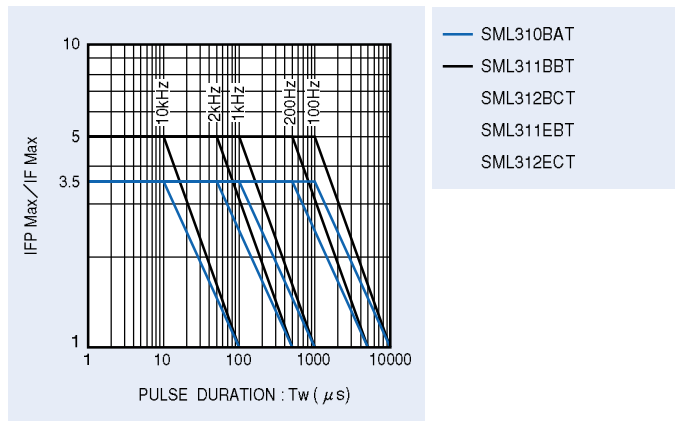
Relative Luminous Intensity - Case Temperature



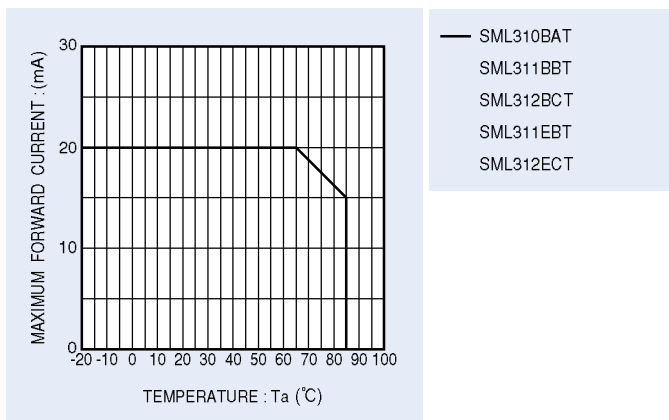
Relative Luminous Intensity - Forward Current



Ratio of Maximum Tolerable Peak Current - Pulse Duration



Derating



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