Triple-Color Chip LEDs with Reflector
1412 <3.5×3.0 t=1.3mm>

SML032 Series

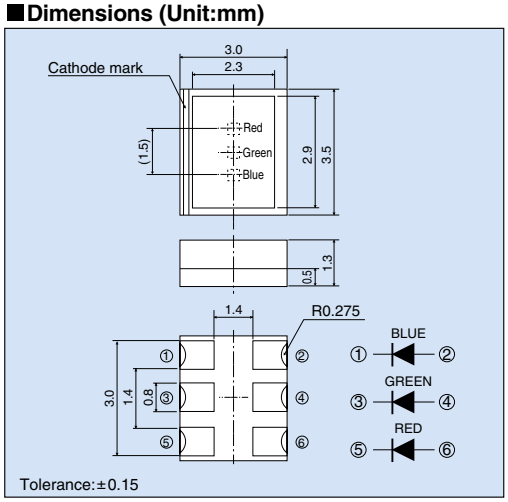
Emitting Color	Part No.		Blue	Green	Red
Material			InGaN on SiC		AlGaInP on GaP
Package Size(mm)	SML032RGB1T		○	○	○
 3530(1412) 3.5×3.0(t=1.3)					

■Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	Power dissipation P_d (mW)	Total Power dissipation P_D*2 (mW)	Forward current I_F*2 (mA)	Peak forward current I_{FP}*3 (mA)	Reverse voltage V_R (V)	Operating temperature T_{opr} (°C)	Storage temperature T_{stg} (°C)
SML032RGB1T	Blue	78	80	20	100	5	-40 to +85	-40 to +100
	Green							
	Red	84		30				

*1:Total power dissipation in case of loghting several colors.
*2:The above absolute maximum ratings are valid for case of lighting a single color. When lighting two colors at the same time, each of the figures in the absolute maximum ratings should be redused down to 50% of it. When lighting three colors, it will be reduced down to 30% of it. (When DC drive)
*3:Duty ≦ 1/20, pulse width≦1ms.

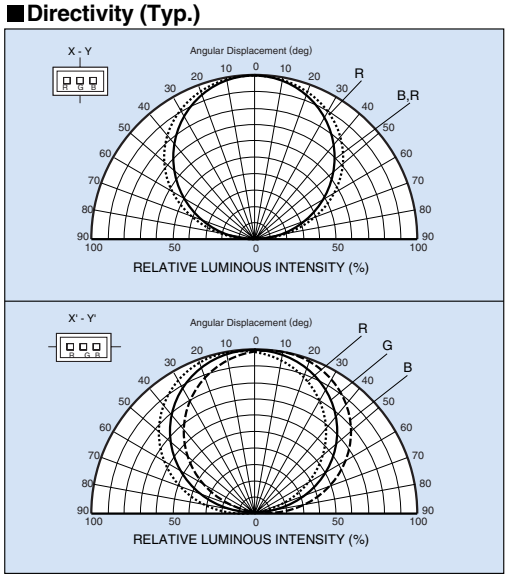
■Dimensions (Unit:mm)



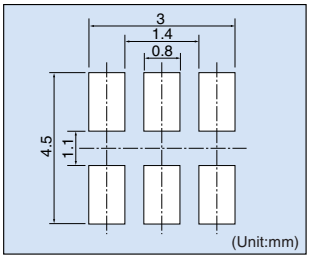
■Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin Color	Forward voltage V_F		Reverse current I_R		Light wavelength Dominant λp	Light wavelength Half-wave $\Delta\lambda$		Brightness Iv		
		Typ. (V)	I_F (mA)	Max. (μA)	V_R (V)	Typ. (nm)	Typ. (nm)	I_F (mA)	Min. (mcd)	Typ. (mcd)	I_F (mA)
SML032RGB1T	Transparent Colorless	3.2	20	100	5	470	26	20	50	125	20
		3.3				530	35		200	500	
		2.2				630	18		140	350	

■Directivity (Typ.)



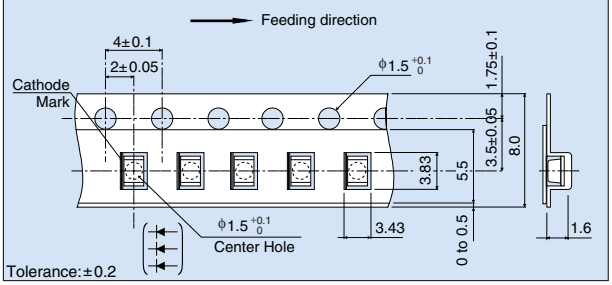
■Recommended Pad Layout



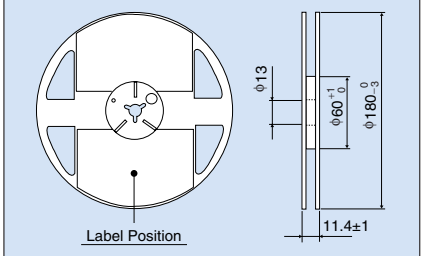
The recommended thickness of the screen mask for soldering is between 100 and 150μm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

■Packaging Specifications (Unit:mm)

Tape Specifications:1 <2,000pcs/reel>

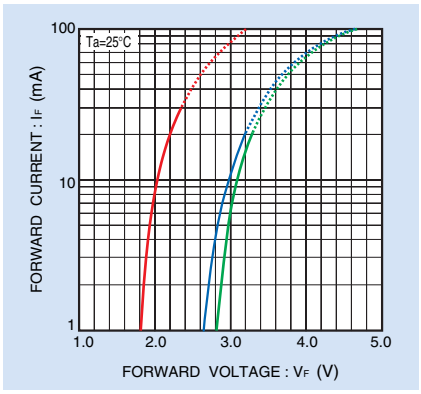


Reel Specifications



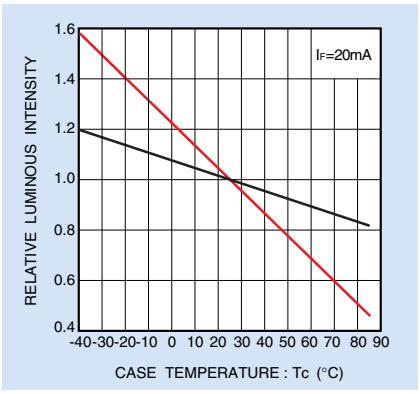
■Electrical Characteristic Curves

Forward Current - Forward Voltage



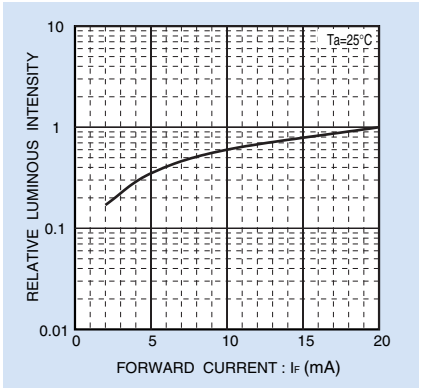
SML032GRB1T <Green>
SML032GRB1T <Red>
SML032GRB1T <Blue>

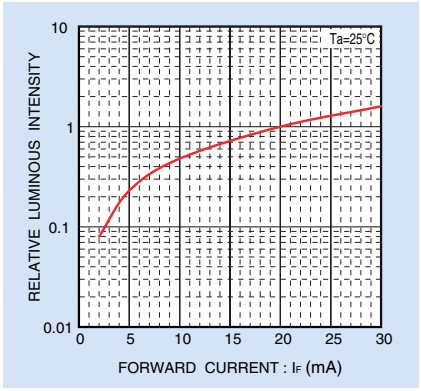
Relative Luminous Intensity - Case Temperature



SML032GRB1T <Green>
SML032GRB1T <Blue>
SML032GRB1T <Red>

Relative Luminous Intensity - Forward Current

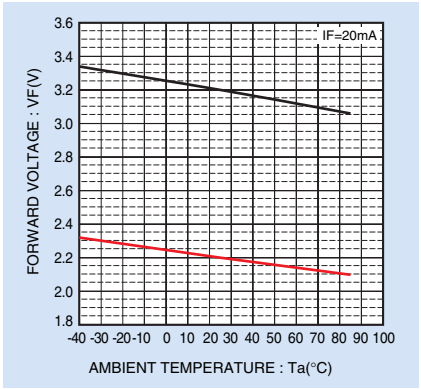




SML032GRB1T <Green>
SML032GRB1T <Blue>

SML032GRB1T <Red>

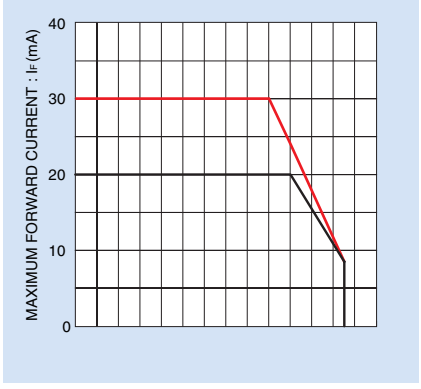
Forward Voltage - Ambient Temperature



SML032GRB1T <Green>
SML032GRB1T <Blue>

SML032GRB1T <Red>

Derating

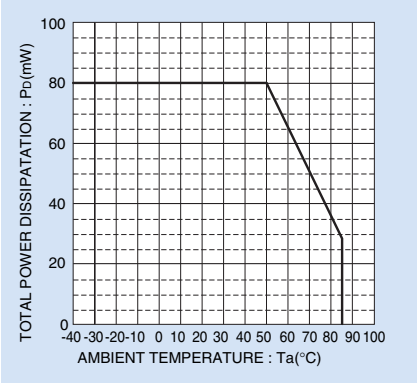


SML032GRB1T <Green>
SML032GRB1T <Blue>

SML032GRB1T <Red>

Note:When lighting a single color.

Total Power Dissipation Derating



SML032GRB1T <Green>
SML032GRB1T <Blue>
SML032GRB1T <Red>

Note:When lighting three colors.

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