

SMLP3 Series

PICOLED™-RGB

SMLP34RGB1W

4pin type
1010(0404)
1.0×1.0mm(t=0.2mm)

SMLP36RGB1W

6pin type
1510(0604)
1.5×1.0mm(t=0.2mm)

Features

- The smallest 3 color type LED in the world* PICOLED™-RGB
- 4pin, 6pin types available
- Low height contributes to the improvement of color mixture



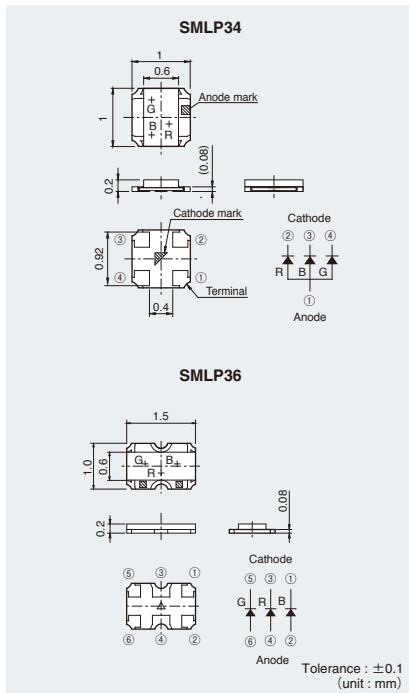
* Investigated Aug. 2009

Specifications

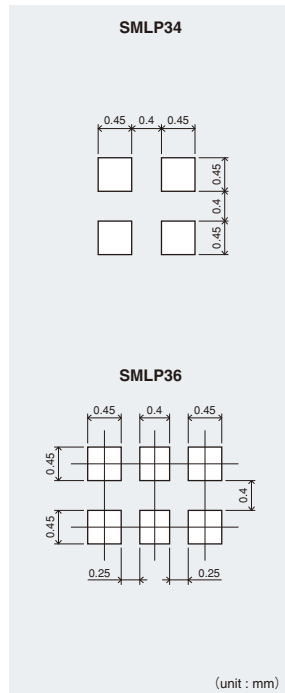
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)					Electrical and Optical Characteristics (Ta=25°C)											
			Power Dissipation Pd(mW)	Forward Current IF(mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage VR(V)	Operating Temperature Topr(°C)	Storage Temperature Tstg(°C)	Forward Voltage VF Typ.(V)	IF(mA)	Reverse Current IR Max.(μA)	VR(V)	Dominant Wavelength λD (nm)			Luminous Intensity Iv (mcd)			
SMLP34RGB1W (3 colors, 4 terminals)	InGaN on SiC	Blue	-	20	100*1	5	-30 to +85	-40 to +100	3.0				465	470	475		9	18	
		Green	-	20	100*1	5	-30 to +85	-40 to +100	3.1	5	100	5	520	527	535	5	22	45	5
	AlGaInP on GaAs	Red							2.1				620	624	629		14	28	
SMLP36RGB1W (3 colors, 6 terminals)	InGaN on SiC	Blue	-	20	100*1	5	-30 to +85	-40 to +100	3.0				465	470	475		9	18	
		Green	-	20	100*1	5	-30 to +85	-40 to +100	3.1	5	100	5	520	527	535	5	22	45	5
	AlGaInP on GaAs	Red							2.1				620	624	629		14	28	

* 1:Duty1/20, 1ms * 2:Reference

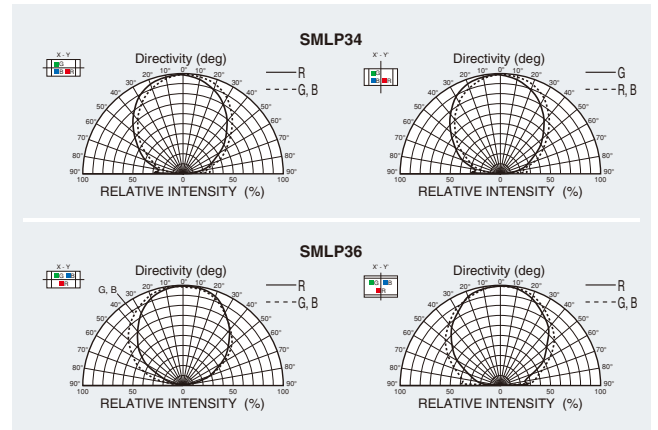
Dimensions



Recommended Solder Pattern



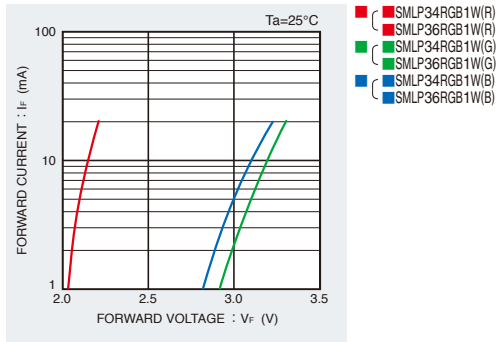
Viewing Angle



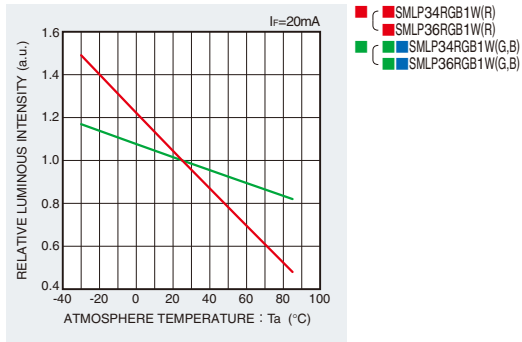
* PICOLED™ is ROHM's pending trademark.

Electrical Characteristics Curves

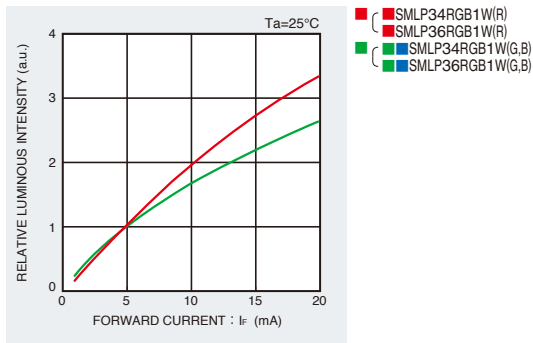
Forward Current-Forward Voltage



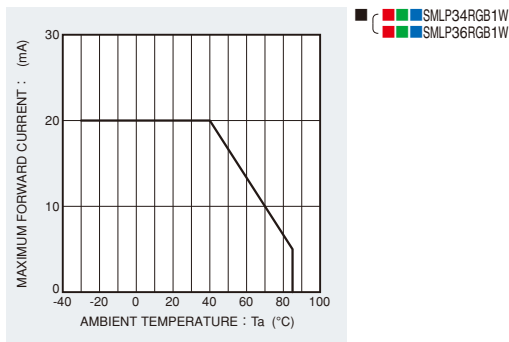
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



Rank Reference of Brightness

■ SMLP34RGB

(Ta=25°C, If=5mA)

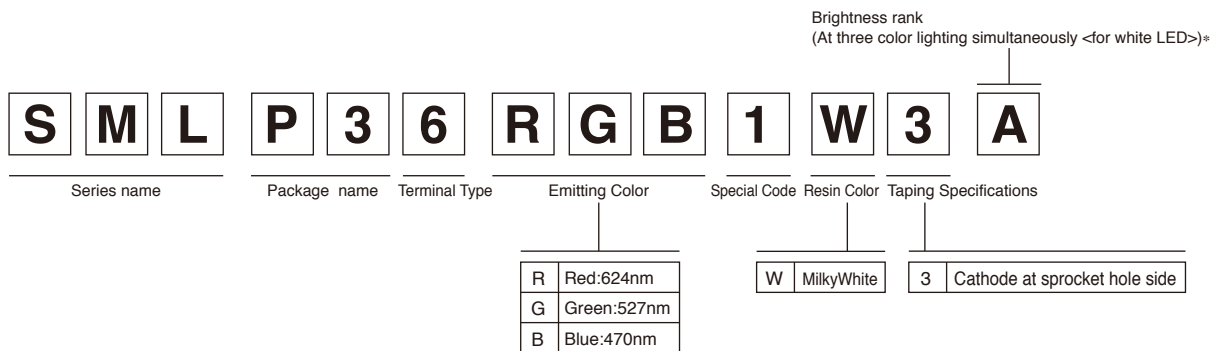
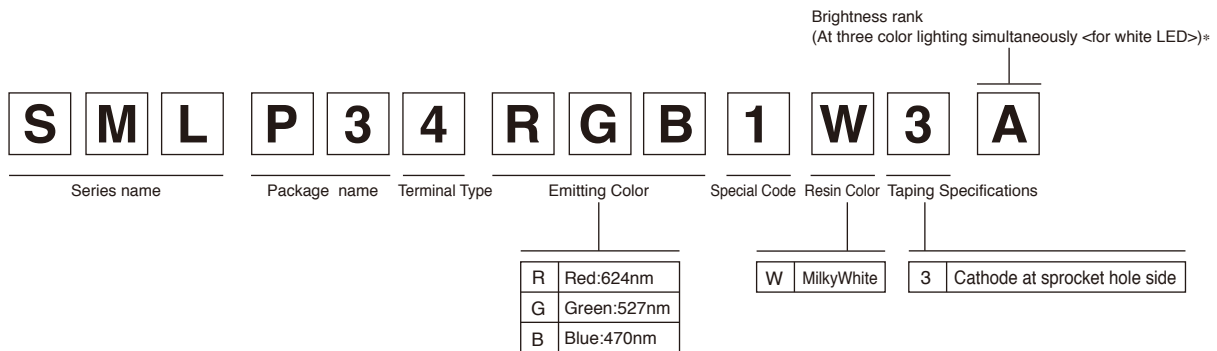
Package size (mm)	Height (mm)	Luminous Intensity (mcd)	Emitting Color	A	B	C	D	E	F	G	H	J	K	L	M
				Mini-mold Chip LEDs	1010 1510	0.2	Blue	9 to 18	18 to 36	9 to 18	18 to 36	9 to 18	18 to 36	9 to 18	18 to 36
			Green	22 to 36		36 to 56		56 to 90		22 to 36		36 to 56		56 to 90	
			Red	14 to 28				28 to 56							

■ SMLP36RGB

(Ta=25°C, If=5mA)

Package size (mm)	Height (mm)	Luminous Intensity (mcd)	Emitting Color	A	B	C	D	E	F	G	H	J	K	L	M
				Mini-mold Chip LEDs	1010 1510	0.2	Blue	9 to 18	18 to 36	9 to 18	18 to 36	9 to 18	18 to 36	9 to 18	18 to 36
			Green	22 to 36		36 to 56		56 to 90		22 to 36		36 to 56		56 to 90	
			Red	14 to 28				28 to 56							

Part No. Explanation



- * Concerning the Brightness rank
- Please refer to the rank chart above for luminous intensity classification.
- Part name is individual for each rank.
- When shipped as sample, the part name will be a representative part name.
- General products are free of ranks. Please contact sales if rank appointment is needed.

Packing Specification

ROHM LED products are being shipped with desiccant (silica gel) included in moisture-proof bags. Pasting the moisture sensitive label on the outer surface of the moisture-proof bags or enclosing the humidity indication card inside the bag is available upon request. Please contact the nearest sales office or distributor if necessary.

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