

SRGB Series



High Bright RGB LEDs



SMLW56 (SRGB1)



SMLV56 (SRGB2)

SMLW56/SMLV56 Series

SMLW56 (SRGB1)

Electrical Characteristics (Ta=25°C)

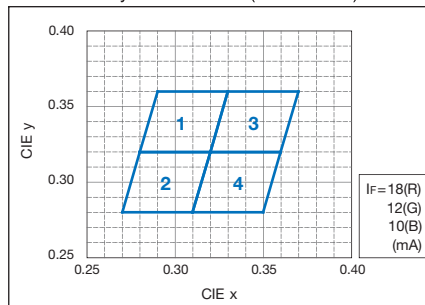
Part No.	Element Constitution	Color	Absolute Maximum Ratings						Electrical and Optical Characteristics								
			Permissible Loss PD (mW)	Forward Current IF (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage VR (V)	Operating Temp. Topr (°C)	Storage Temp. Tstg (°C)	Forward Voltage Typ. (V)	IF (mA)	Reverse Current Max. (μA)	VR (V)	min. (nm)	Typ. (nm)	Max. (nm)	IF (mA)	min. (mcd)
SMLW56RGB1W	AlGaInP on Si	Red		50					2.1		10	-	624	-	450	700	
	InGaN on SiC	Green	400	40	100*	5	-40 to 85	-40 to 100	3.3	20	-	527	-	20	710	1200	20
	InGaN on SiC	Blue							3.2		-	470	-	220	400		

*Duty≤1/20, Pulse widths1ms

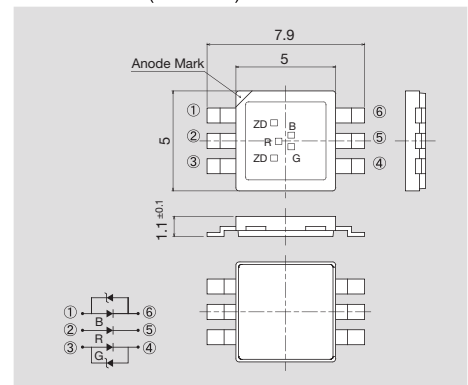
(White LED)

Electrical and Optical Characteristics (Ta=25°C)				
Chromaticity (x, y)	IF (mA)	Brightness		IF (mA)
		min. (mcd)	Typ. (mcd)	
(0.32, 0.32)	(R)18			(R)18
	(G)12	1100	1800	(G)12
	(B)10			(B)10

Chromaticity Classification (White Rank)



Dimensions (Unit:mm)



SMLV56 (SRGB2)

Electrical Characteristics (Ta=25°C)

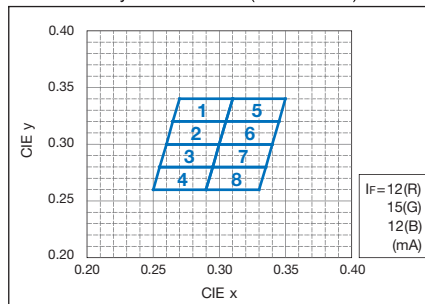
Part No.	Element Constitution	Color	Absolute Maximum Ratings (Ta=25°C)						Electrical and Optical Characteristics (Ta=25°C)								
			Permissible Loss PD (mW)	Forward Current IF (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage VR (V)	Operating Temp. Topr (°C)	Storage Temp. Tstg (°C)	Forward Voltage Typ. (V)	IF (mA)	Reverse Current Max. (μA)	VR (V)	min. (nm)	Typ. (nm)	Max. (nm)	IF (mA)	min. (mcd)
SMLV56RGB1W	AlGaInP on Si	Red		50					2.1		10	-	624	-	450	700	
	InGaN on SiC	Green	400	40	100*	5	-40 to 85	-40 to 100	3.3	20	-	527	-	20	710	1200	20
	InGaN on SiC	Blue									-	470	-	220	400		

*Duty≤1/20, Pulse widths1ms

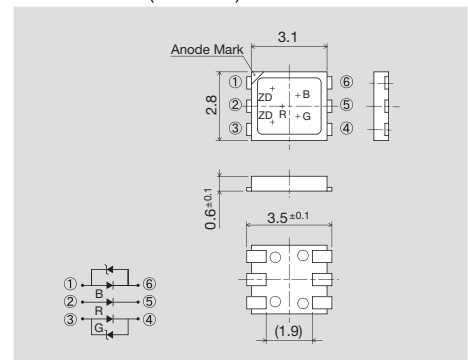
(White LED)

Electrical and Optical Characteristics (Ta=25°C)				
Chromaticity (x, y)	IF (mA)	Brightness		IF (mA)
		min. (mcd)	Typ. (mcd)	
(0.30, 0.30)	(R)12			(R)12
	(G)15	1100	1700	(G)15
	(B)12			(B)12

Chromaticity Classification (White Rank)



Dimensions (Unit:mm)



SRGB Series



Color Type **FULL COLOR**

2 Package Types

ROHM offers high bright RGB LEDs in two package types: a compact model (SRGB2) and a larger type (SRGB1).

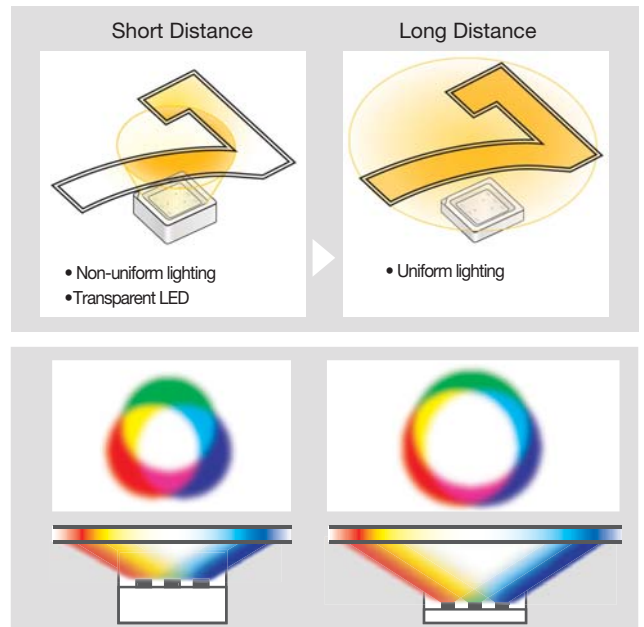
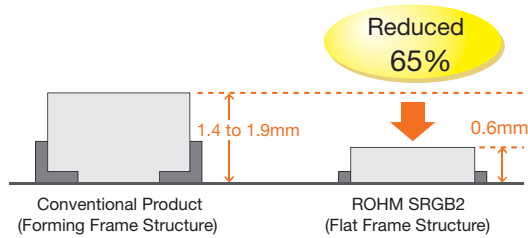
- SRGB1: 7.9×5.0mm t=1.1mm
- The SRGB2 features the same mounting area as the PLCC6 package, but in a lower profile (t=0.6mm).

SMLW56RGB (SRGB1)	 <p>High Bright RGB</p> <p>700/1200/400* 7.9×5.0 t=1.1</p>
SMLV56RGB (SRGB2)	 <p>Compact High Bright RGB</p> <p>700/1200/400* 3.5×2.8 t=0.6</p>

*R/G/B mod (20mA)

Higher Brightness in a Lower Profile

Proprietary technology is required in order to reduce the profile. Excellent distance characteristics ensure uniform lighting and superior color mixture. In addition the special construction prevents viewing the LED through the external panel, and color mixture sorting is performed for optimum color tones.



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