

# SML-21 Series

2012(0805)  
2.0 × 1.25mm (t=0.8mm)

### Features

- Abundant color variations with diverse luminous intensity types

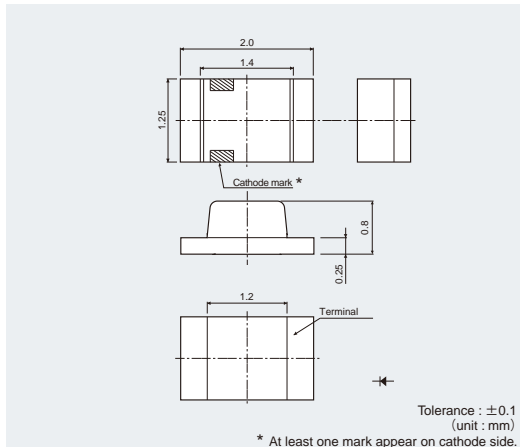


### Specifications

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 <sub>FP</sub> (mA)	Reverse Voltage VR (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage VF (V)		Reverse Current IR (μA)		Dominant Wavelength λD (nm)			Luminous Intensity Iv (mcd)			
SML-212VT	AlGaInP on GaAs	Red	75	30	60* <sup>1</sup>	4	-30 to +85	-40 to +85	2.05	20	100	4	625	630	635	20	22	63	
SML-210VT	GaAsP on GaP		70	25					611				615	619	1.4		4	20	
SML-212U2T(A)			75	30	100* <sup>2</sup>	5	-40 to +100	-40 to +100	2	10	5	611	615	619	71	140			
SML-211UT	AlGaInP on GaAs	Orange	44	20	60* <sup>1</sup>	4	-30 to +85	-40 to +85	1.8	2	100	4	615	620	625	2	0.9	2.5	2
SML-212DT			75	30					602				605	608	2		0.9	2.5	2
SML-211DT			44	20	2	2	602	605	608	2	0.9	2.5	2						
SML-210DT	GaAsP on GaP	Yellow	70	25	60* <sup>1</sup>	4	-30 to +85	-40 to +85	2.05	20	100	4	587	590	593	20	2.2	6.3	20
SML-212WT(A)			75	30					100* <sup>2</sup>								5	-40 to +100	
SML-211WT	AlGaInP on GaAs		44	20	1.8	2	587	590	593	2	1.4	4	2						
SML-212YT		75	30	2.05	20	20	22	63	20										
SML-211YT		44	20	1.8	2	584	587	590	2	1.4	4	2							
SML-210YT	GaAsP on GaP	Yellowish Green	70	25	60* <sup>1</sup>	4	-30 to +85	-40 to +85	2.1	20	100	4	567	570	573	20	2.2	6.3	20
SML-210MT									2.2								20	567	
SML-210PT	GaP		Green											557	560	563	1.4	4	

\* 1:Duty1/5, 200Hz / \* 2:Duty1/10, 1kHz / \* 3:Reference

### Dimensions

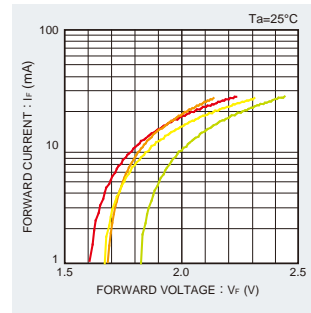
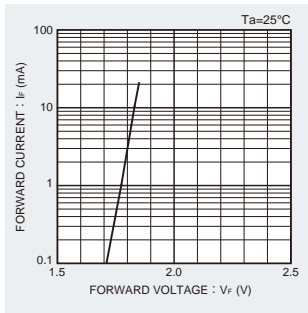
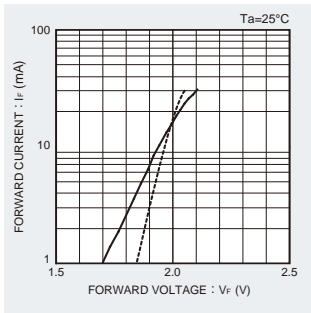


### Recommended Solder Pattern Viewing Angle

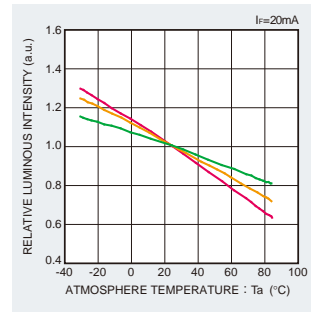
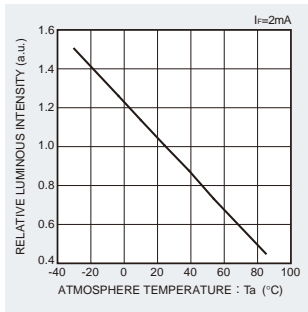
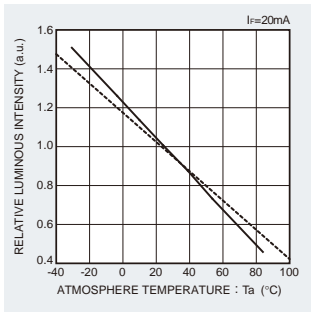


## Electrical Characteristics Curves

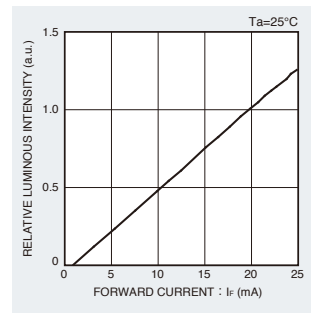
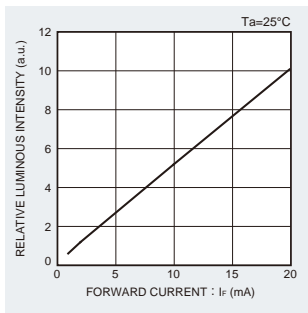
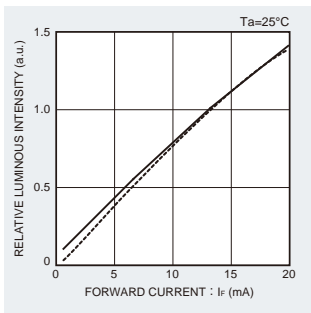
### Forward Current-Forward Voltage



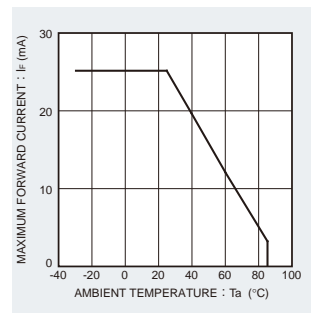
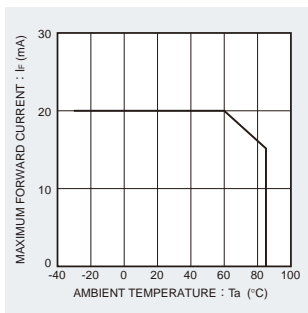
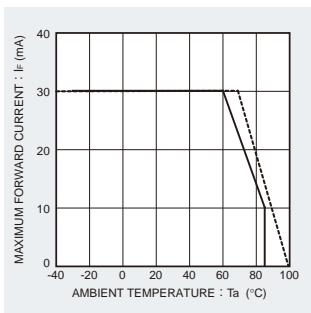
### Luminous Intensity-Atmosphere Temperature



### Luminous Intensity-Forward Current



### Derating



# SML-21 Series

## Rank Reference of Brightness

### Red (V, U)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
			1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1600
Mini-mold Chip LEDs	20125	0.8	SML-211UT <sup>※/※1</sup>					SML-212VT <sup>※</sup>										
			SML-210VT <sup>※</sup>					SML-212U2T(A) <sup>*</sup>										

### Orange (D)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
			1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1600
Mini-mold Chip LEDs	20125	0.8	SML-211DT <sup>※/※1</sup>					SML-210DT <sup>※</sup>					SML-212DT					

### Yellow (Y, W)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
			1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1600
Mini-mold Chip LEDs	20125	0.8	SML-211YT <sup>※/※1</sup>					SML-210YT <sup>※</sup>					SML-212YT <sup>※</sup>					
			SML-211WT <sup>※/※1</sup>										SML-212WT(A) <sup>*</sup>					

### Green (M, P)

(Ta=25°C, If=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X
			0.63 to 1.0	1.0 to 1.6	1.6 to 2.5	2.5 to 4.0	4.0 to 6.3	6.3 to 10	10 to 16	16 to 25	25 to 40	40 to 63	63 to 100	100 to 160	160 to 250	250 to 400	400 to 630	630 to 1000	1000 to 1800
Mini-mold Chip LEDs	20125	0.8	SML-210PT <sup>※</sup>					SML-210MT <sup>※</sup>											

\* Please note that the brightness of some products may fall between ranks (half rank).  
 ※Brightness on specification sheet include tolerance of within ± 10%. ※1 If=2mA

## Part No. Construction



- \* 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) concluded 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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