

# SML-21 Series

2012(0805)  
2.0 × 1.25mm (t=0.8mm)

### Features

- Abundant color variations with diverse luminous intensity types

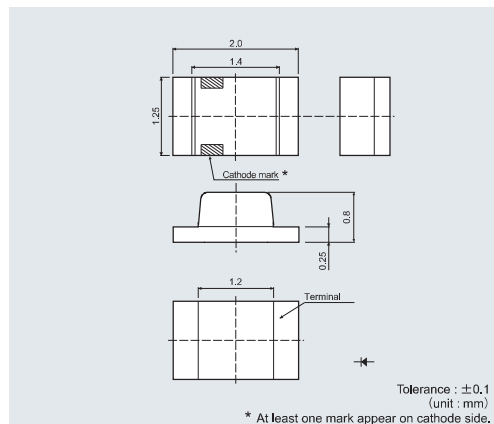


### Specifications

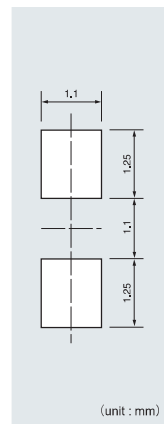
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)					Electrical and Optical Characteristics (Ta=25°C)											
			Power Dissipation Pd(mW)	Forward Current If(mA)	Peak Forward Current Ifp(mA)	Reverse Voltage Vr(V)	Operating Temperature Topr(°C)	Storage Temperature Tstg(°C)	Forward Voltage Vf Typ.(V)	Forward Current If(mA)	Reverse Current Ir Max.(μA)	Reverse Voltage Vr(V)	Dominant Wavelength λD Min.*1(nm)	Typ.(nm)	Max.*2(nm)	Luminous Intensity Iv Min.(mcd)	Typ.(mcd)	Iv(mA)	
SML-212VT	AlGaInP on GaAs	Red	75	30	60*1	4	-30 to +85	-40 to +85	2.05	20	100	4	625	630	635	20	22	63	
SML-210VT	GaAsP on GaP		75	25					2		10	5	611	615	619		71	140	
SML-212U2T(A)			75	30	100*2	5	-40 to +100	-40 to +100											
SML-211UT	AlGaInP on GaAs	Orange	44	20					1.8	2			615	620	625	2	0.9	2.5	2
SML-212DT			75	30	60*1	4	-30 to +85	-40 to +85	2.05	20	100	4				20	25	63	20
SML-211DT			44	20					1.8	2			602	605	608	2	0.9	2.5	2
SML-210DT	GaAsP on GaP		70	25												2.2	6.3		
SML-212WT(A)			75	30	100*2	5	-40 to +100	-40 to +100	2	20	10	5				20	112	224	20
SML-211WT	AlGaInP on GaAs	Yellow	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	100	4				2	1.4	4	2
SML-210YT	GaAsP on GaP				60*1	4	-30 to +85	-40 to +85	2.1								2.2	6.3	
SML-210MT	GaP	Yellowish Green	70	25					2.2	20			567	570	573	20	3.6	16	20
SML-210PT		Green											557	560	563		1.4	4	

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

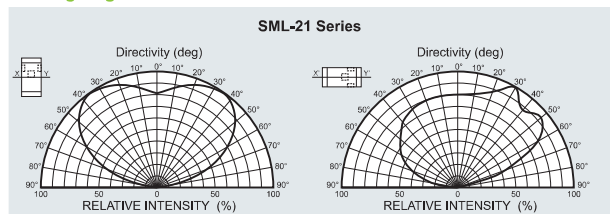
### Dimensions



### Recommended Solder Pattern

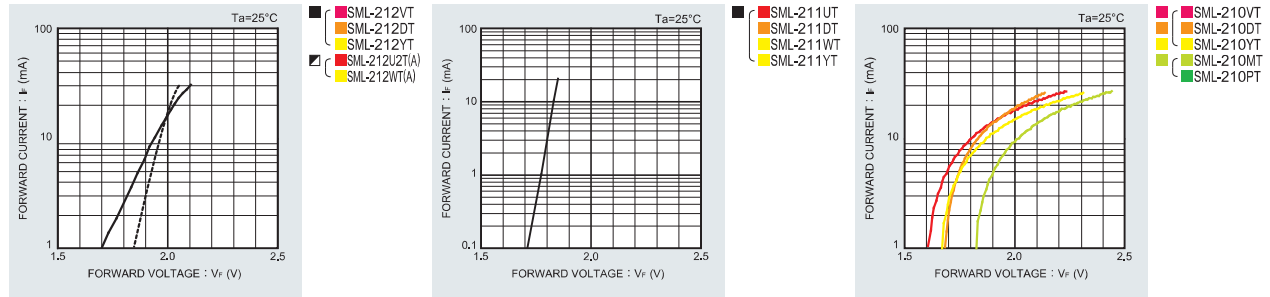


### Viewing Angle

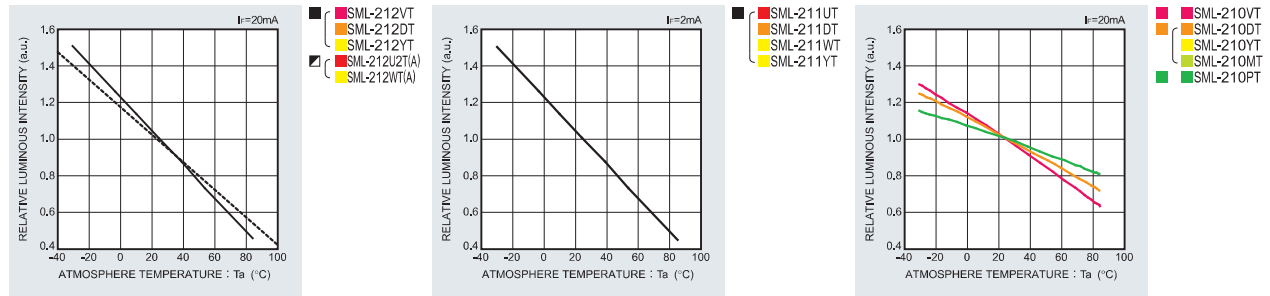


## Electrical Characteristics Curves

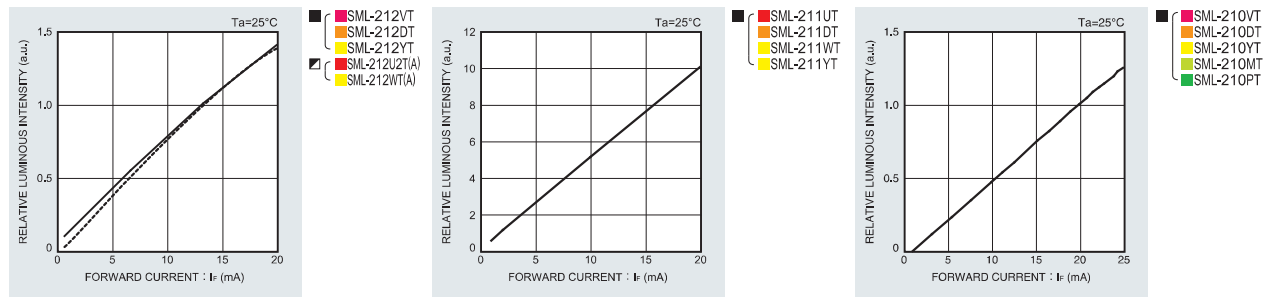
### Forward Current-Forward Voltage



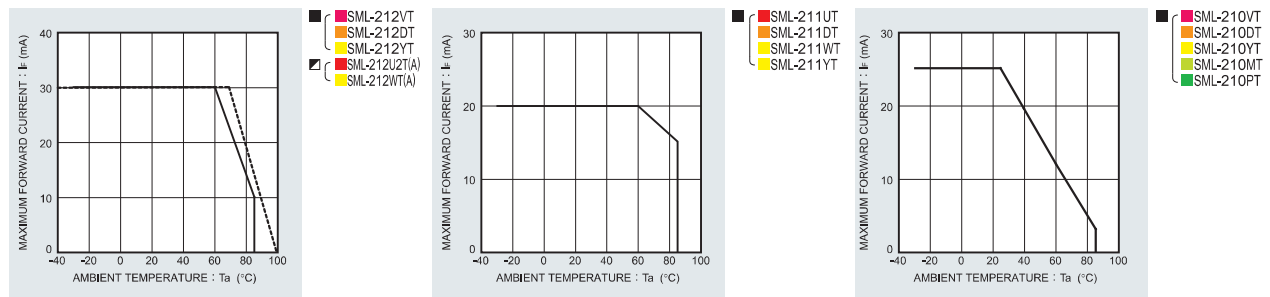
### Luminous Intensity-Atmosphere Temperature



### 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>※7,※1</sup>					SML-212VT <sup>※8</sup>					SML-212U2T(A) <sup>※</sup>						
		SML-210VT <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>※7,※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>※7,※1</sup>					SML-212YT <sup>※8</sup>					SML-212WT(A) <sup>※</sup>						
		SML-211WT <sup>※7,※1</sup>					SML-210YT <sup>※</sup>											

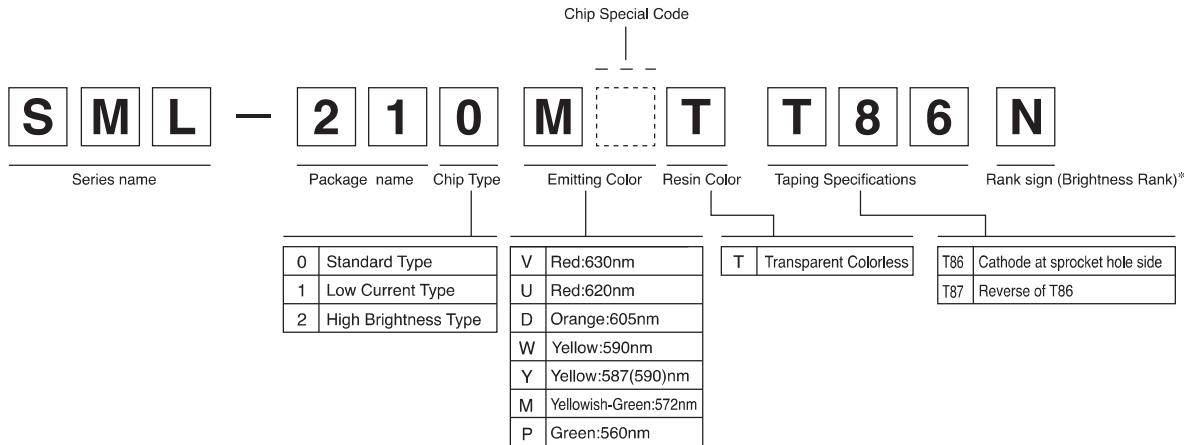
### Green (M, P)

(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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