

SML-21 Series

2012(0805)
2.0 × 1.25mm (t=0.8mm)

Features

- Abundant color variations with diverse luminous intensity types

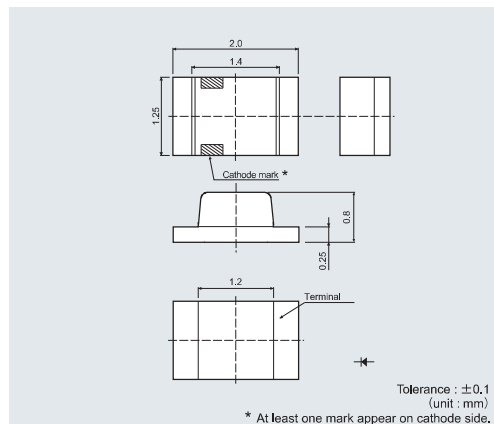


Specifications

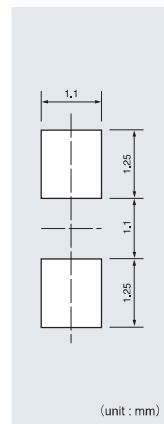
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)					Electrical and Optical Characteristics (Ta=25°C)											
			Power Dissipation Pd(mW)	Forward Current If(mA)	Peak Forward Current Ifp(mA)	Reverse Voltage Vr(V)	Operating Temperature Topr(°C)	Storage Temperature Tstg(°C)	Forward 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	20
SML-210VT	GaAsP on GaP		75	25	60*1	4	-30 to +85	-40 to +85	2	20	10	5	611	615	619	71	140	20	
SML-212U2T(A)			75	30	100*2	5	-40 to +100	-40 to +100	2	20	10	5	611	615	619	71	140	20	
SML-211UT	AlGaInP on GaAs	Orange	44	20	60*1	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	60*1	4	-30 to +85	-40 to +85	2.05	20	100	4	602	605	608	2	0.9	2.5	2
SML-211DT			44	20	60*1	4	-30 to +85	-40 to +85	1.8	2	100	4	602	605	608	2	0.9	2.5	2
SML-210DT	GaAsP on GaP	Yellow	70	25	60*1	4	-30 to +85	-40 to +85	2.1	20	100	4	584	587	590	2	1.4	4	2
SML-212WT(A)			75	30	100*2	5	-40 to +100	-40 to +100	2	20	10	5	587	590	593	2	1.4	4	2
SML-211WT			44	20	60*1	4	-30 to +85	-40 to +85	1.8	2	100	4	584	587	590	2	1.4	4	2
SML-212YT	AlGaInP on GaAs	Yellowish Green	75	30	60*1	4	-30 to +85	-40 to +85	2.05	20	100	4	567	570	573	20	3.6	16	20
SML-211YT			44	20	60*1	4	-30 to +85	-40 to +85	1.8	2	100	4	567	570	573	20	3.6	16	20
SML-210YT	GaAsP on GaP		70	25	60*1	4	-30 to +85	-40 to +85	2.1	20	100	4	567	570	573	20	3.6	16	20
SML-210MT	GaP	Green	70	25	60*1	4	-30 to +85	-40 to +85	2.2	20	100	4	557	560	563	1.4	4	20	
SML-210PT			70	25	60*1	4	-30 to +85	-40 to +85	2.2	20	100	4	557	560	563	1.4	4	20	

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

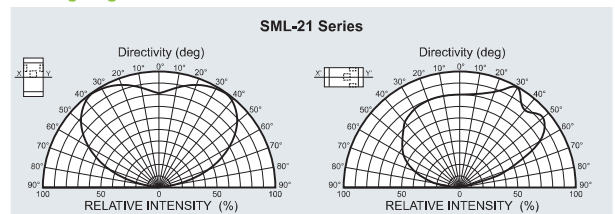
Dimensions



Recommended Solder Pattern

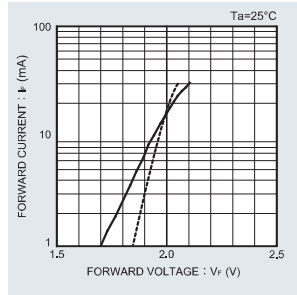


Viewing Angle

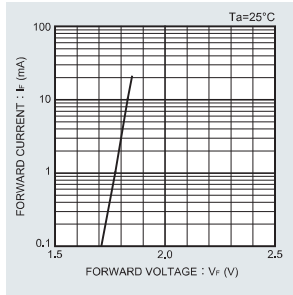


Electrical Characteristics Curves

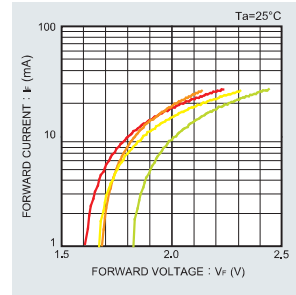
Forward Current-Forward Voltage



- SML-212VT
- SML-212DT
- SML-212YT
- SML-212U2T(A)
- SML-212WT(A)

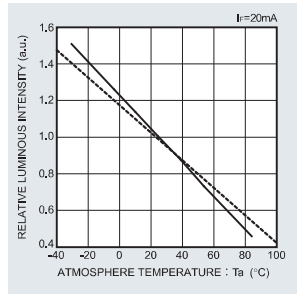


- SML-211UT
- SML-211DT
- SML-211YT
- SML-211WT
- SML-211YT

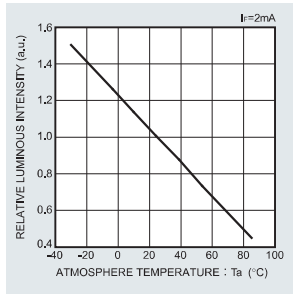


- SML-210VT
- SML-210DT
- SML-210YT
- SML-210YT
- SML-210MT
- SML-210YT
- SML-210PT

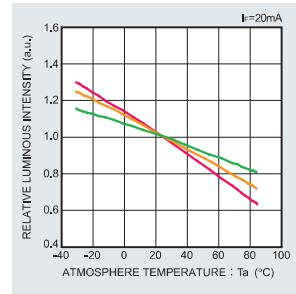
Luminous Intensity-Atmosphere Temperature



- SML-212VT
- SML-212DT
- SML-212YT
- SML-212U2T(A)
- SML-212WT(A)

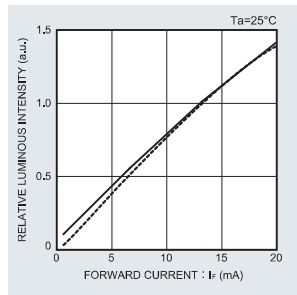


- SML-211UT
- SML-211DT
- SML-211YT
- SML-211WT
- SML-211YT

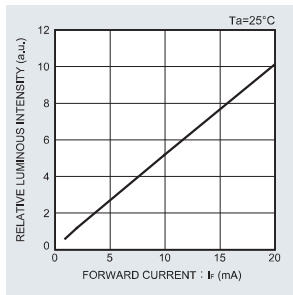


- SML-210VT
- SML-210DT
- SML-210YT
- SML-210YT
- SML-210MT
- SML-210YT
- SML-210PT

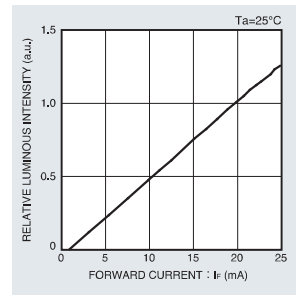
Luminous Intensity-Forward Current



- SML-212VT
- SML-212DT
- SML-212YT
- SML-212U2T(A)
- SML-212WT(A)

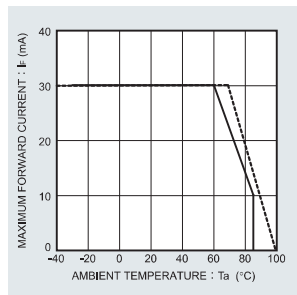


- SML-211UT
- SML-211DT
- SML-211YT
- SML-211WT
- SML-211YT

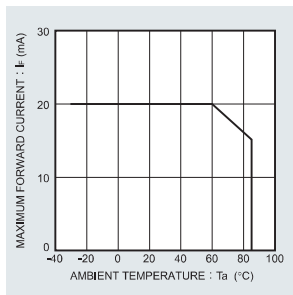


- SML-210VT
- SML-210DT
- SML-210YT
- SML-210YT
- SML-210MT
- SML-210YT
- SML-210PT

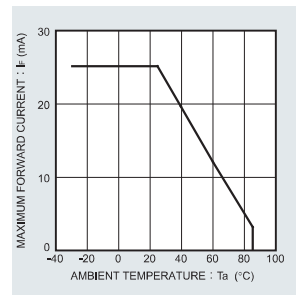
Derating



- SML-212VT
- SML-212DT
- SML-212YT
- SML-212U2T(A)
- SML-212WT(A)



- SML-211UT
- SML-211DT
- SML-211YT
- SML-211WT
- SML-211YT



- SML-210VT
- SML-210DT
- SML-210YT
- SML-210YT
- SML-210MT
- SML-210YT
- SML-210PT

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 ^{※7,※1}					SML-212VT ^{※8}					SML-212U2T(A) [※]						
		SML-210VT [※]																

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 ^{※7,※1}					SML-210DT [※]					SML-212DT						
		SML-210DT [※]																

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 ^{※7,※1}					SML-212YT ^{※8}					SML-212WT(A) [※]						
		SML-211WT ^{※7,※1}					SML-210YT [※]											

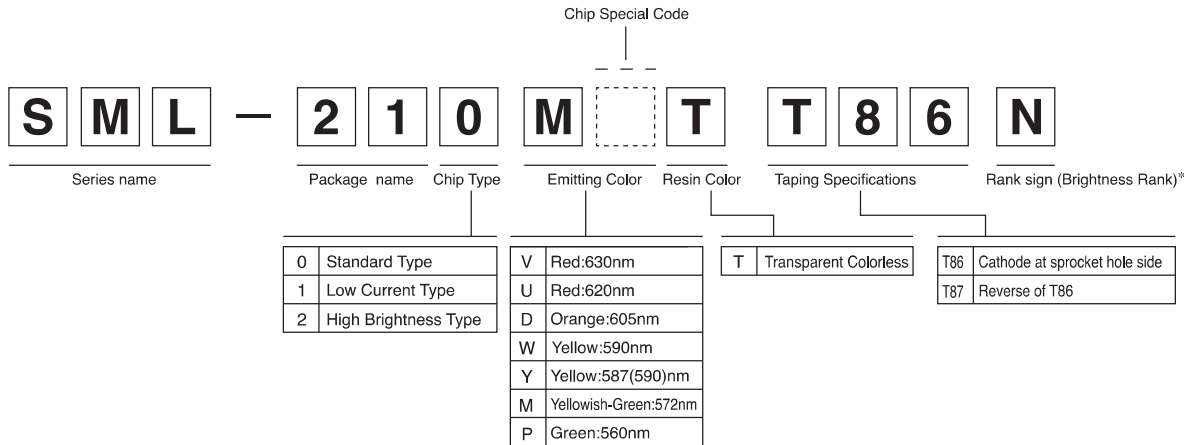
Green (M, P)

(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 [※]					SML-210MT [※]											

* 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.

Notes

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