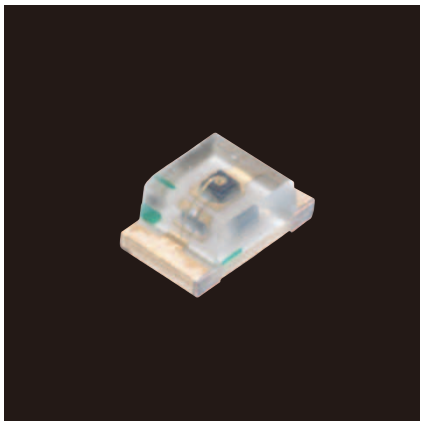


SML-21 Series

2012(0805)
2.0×1.25mm(t=0.8mm)

Features

・Abundant color variations with diverse luminous intensity types

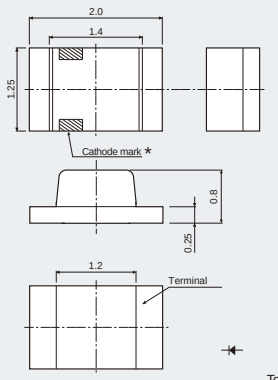
Color Type: V U D Y W M P

Specifications

Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25℃) Power Dissipation PD(mW)	Forward Current IF(mA)	Peak Forward Current IFP(mA)	Reverse Voltage VR(V)	Operating Temperature Topr(℃)	Storage Temperature Tstg(℃)	Electrical and Optical Characteristics (Ta=25℃) Forward Voltage VF Typ.(V)	IF(mA)	Reverse Current IR Max.(μA)	VR(V)	Dominant Wavelength λD Min.*3 (nm)	Typ. (nm)	Max.*3 (nm)	IF(mA)	Luminous Intensity Iv Min. (mcd)	Typ. (mcd)	IF(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		70	25					2								1.4	4	
SML-212U2T(A)	AlGaInP on GaAs		75	30	100*2	5	-40 to +100	-40 to +100			10	5	611	615	619		71	140	
SML-211UT			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		Orange	75	30					2.05	20			602	605	608	20	25	63	20
SML-211DT			44	20					1.8	2						2	0.9	2.5	2
SML-210DT	GaAsP on GaP		70	25					2	20						20	2.2	6.3	20
SML-212WT(A)	AlGaInP on GaAs	Yellow	75	30	100*2	5	-40 to +100	-40 to +100			10	5	587	590	593		112	224	
SML-211WT			44	20	60*1	4	-30 to +85	-40 to +85	1.8	2	100	4				2	1.4	4	2
SML-212YT			75	30					2.05	20			584	587	590	20	22	63	20
SML-211YT			44	20					1.8	2						2	1.4	4	2
SML-210YT	GaAsP on GaP								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	

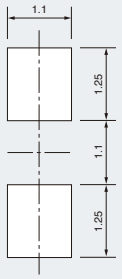
*1:Duty1/5, 200Hz / *2:Duty1/10, 1kHz / *3:Reference

Dimensions



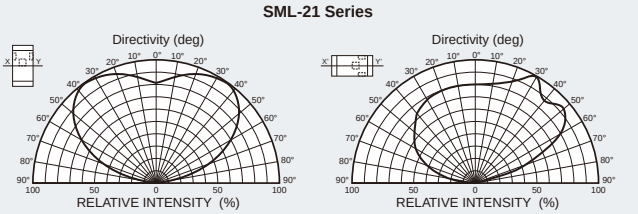
Tolerance : ±0.1
(unit : mm)
* At least one mark appear on cathode side.

Recommended Solder Pattern



(unit : mm)

Viewing Angle



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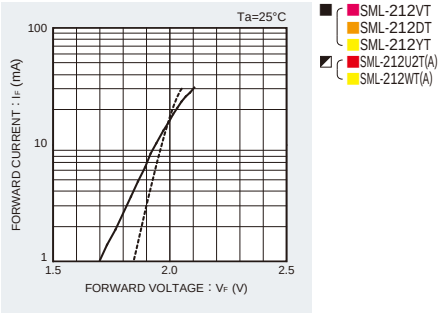
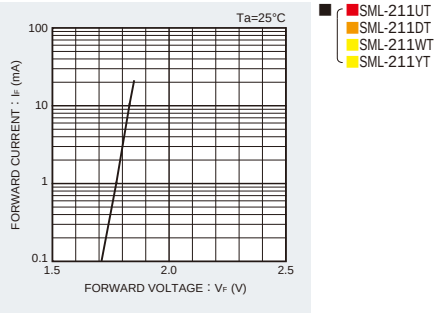
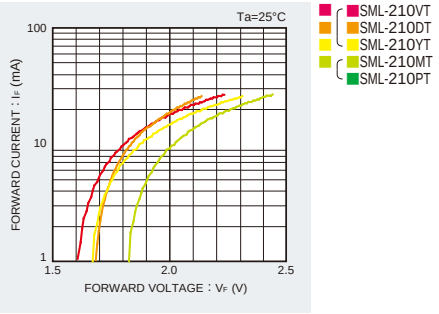
Electrical Characteristics Curves

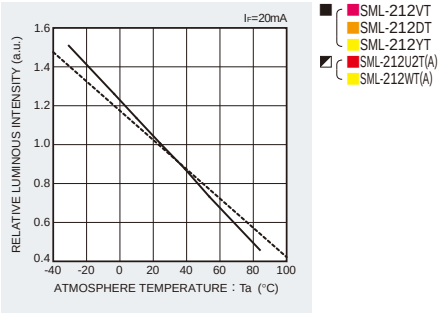
Forward Current-Forward Voltage

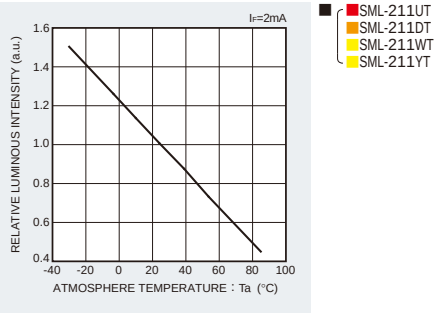


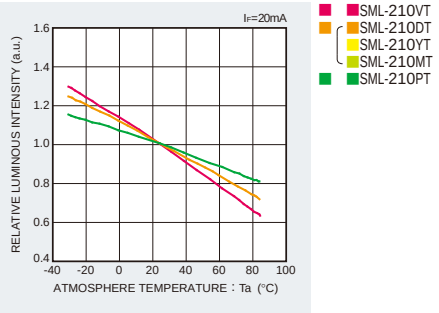




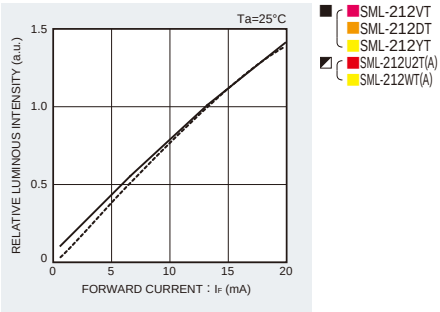
Luminous Intensity-Atmosphere Temperature

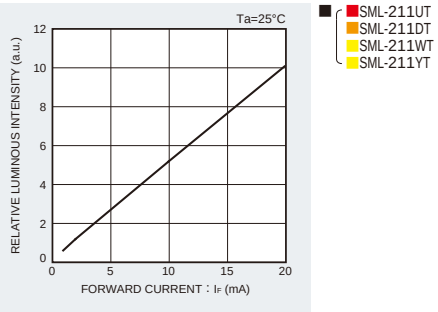


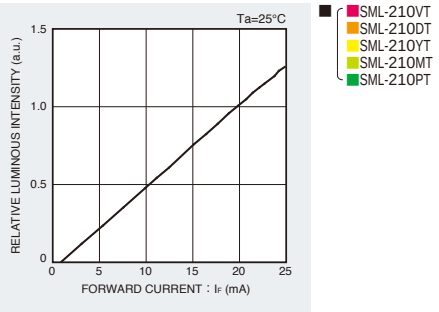




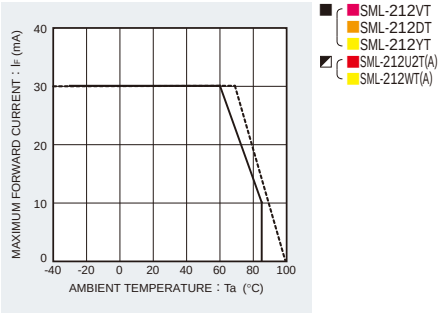
Luminous Intensity-Forward Current

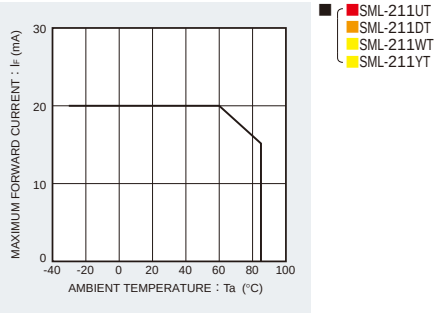


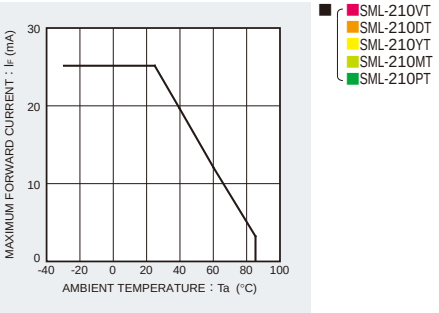




Derating







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Rank Reference of Brightness

Red (V, U)

(Ta=25°C, IF=20mA)

	Package size(mm)	Luminous Intensity (mcd) / Height(mm)	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※/※1							SML-212VT※								
				SML-210VT※								SML-212U2T(A)＊						

Orange (D)

(Ta=25°C, IF=20mA)

	Package size(mm)	Luminous Intensity (mcd) / Height(mm)	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※/※1							SML-212DT								
					SML-210DT※													

Yellow (Y, W)

(Ta=25°C, IF=20mA)

	Package size(mm)	Luminous Intensity (mcd) / Height(mm)	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※/※1						SML-212YT※								
				SML-211WT※/※1									SML-212WT(A)＊					
					SML-210YT※													

Green (M, P)

(Ta=25°C, IF=20mA)

	Package size(mm)	Luminous Intensity (mcd) / Height(mm)	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

Chip Special Code

S M L – 2 1 0 M □ T T 8 6 N

Series name | Package name | Chip Type | Emitting Color | Resin Color | Taping Specifications | Rank sign (Brightness Rank)＊

0	Standard Type
1	Low Current Type
2	High Brightness Type

V	Red:630nm
U	Red:620nm
D	Orange:605nm
W	Yellow:590nm
Y	Yellow:587(590)nm
M	Yellowish-Green:572nm
P	Green:560nm

T	Transparent Colorless

T86	Cathode at sprocket hole side
T87	Reverse of T86

＊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 distributer if necessary.

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