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℃)						Electrical and Optical Characteristics (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(℃)	Forward Voltage VF Typ.(V)	VF IF(mA)	Reverse Current IR Max.(µA)	IR VR(V)	Dominant Wavelength λD Min.[3](nm)	Typ.(nm)	Max.[3](nm)	λD IF(mA)	Luminous Intensity Iv Min.(mcd)	Typ.(mcd)	Iv IF(mA)
■ SML-212VT	AlGaInP on GaAs	Red	75	30	60[1]	4	-30 to +85	-40 to +85	2.05		100	4	625	630	635	20	22	63	20
■ SML-210VT	GaAsP on GaP	Red	70	25	60[1]	4	-30 to +85	-40 to +85	2	20	100	4	625	630	635	20	1.4	4	20
■ SML-212U2T(A)	AlGaInP on GaAs	Red	75	30	100[2]	5	-40 to +100	-40 to +100	2	20	10	5	611	615	619	20	71	140	20
■ SML-211UT	AlGaInP on GaAs	Red	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	AlGaInP on GaAs	Orange	75	30	60[1]	4	-30 to +85	-40 to +85	2.05	20	100	4	602	605	608	20	25	63	20
■ SML-211DT	AlGaInP on GaAs	Orange	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	Orange	70	25	60[1]	4	-30 to +85	-40 to +85	2	20	100	4	602	605	608	20	2.2	6.3	20
■ SML-212WT(A)	AlGaInP on GaAs	Yellow	75	30	100[2]	5	-40 to +100	-40 to +100	2	20	10	5	587	590	593	20	112	224	20
■ SML-211WT	AlGaInP on GaAs	Yellow	44	20	60[1]	4	-30 to +85	-40 to +85	1.8	2	100	4	587	590	593	2	1.4	4	2
■ SML-212YT	AlGaInP on GaAs	Yellow	75	30	60[1]	4	-30 to +85	-40 to +85	2.05	20	100	4	587	590	593	20	22	63	20
■ SML-211YT	AlGaInP on GaAs	Yellow	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-210YT	GaAsP on GaP	Yellow	70	25	60[1]	4	-30 to +85	-40 to +85	2.1	20	100	4	584	587	590	20	2.2	6.3	20
■ SML-210MT	GaP	Yellowish Green	70	25	60[1]	4	-30 to +85	-40 to +85	2.2	20	100	4	567	570	573	20	3.6	16	20
■ SML-210PT	GaP	Green	70	25	60[1]	4	-30 to +85	-40 to +85	2.2	20	100	4	557	560	563	20	1.4	4	20

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

Dimensions
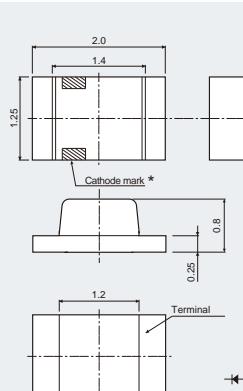
2.0
1.4
1.25
Cathode mark ＊
0.8
0.25
1.2
Terminal
Tolerance：±0.1
(unit：mm)
＊ At least one mark appear on cathode side.

Recommended Solder Pattern

1.1
1.25
1.1
1.25
(unit：mm)

Viewing Angle

SML-21 Series

Directivity (deg)
RELATIVE INTENSITY （%）
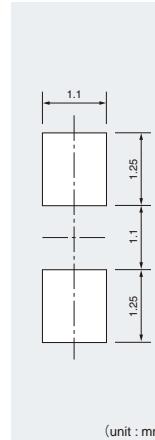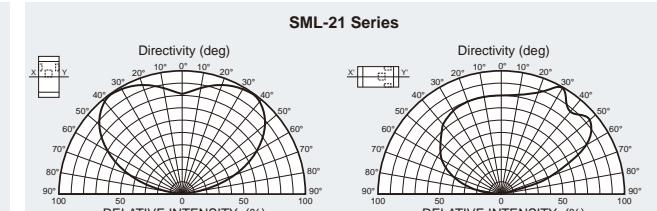
Electrical Characteristics Curves

■ Forward Current-Forward Voltage

■ ⌈ SML-212VT
    SML-212DT
    SML-212YT
☑ ⌈ SML-212U2T(A)
    SML-212WT(A)

■ ⌈ SML-211UT
    SML-211DT
    SML-211WT
    SML-211YT

■ SML-210VT
  SML-210DT
  SML-210YT
  SML-210MT
  SML-210PT
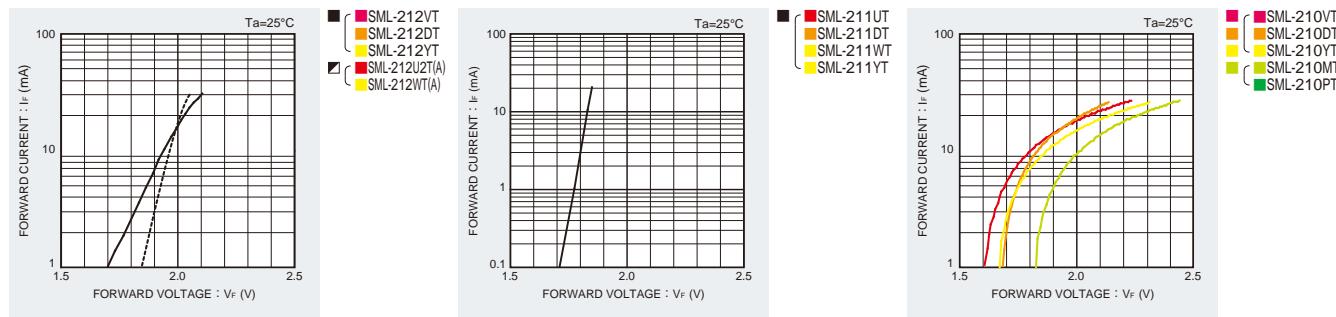
■ Luminous Intensity-Atmosphere Temperature

■ ⌈ SML-212VT
    SML-212DT
    SML-212YT
☑ ⌈ SML-212U2T(A)
    SML-212WT(A)

■ ⌈ SML-211UT
    SML-211DT
    SML-211WT
    SML-211YT

■ SML-210VT
  SML-210DT
  SML-210YT
  SML-210MT
  SML-210PT
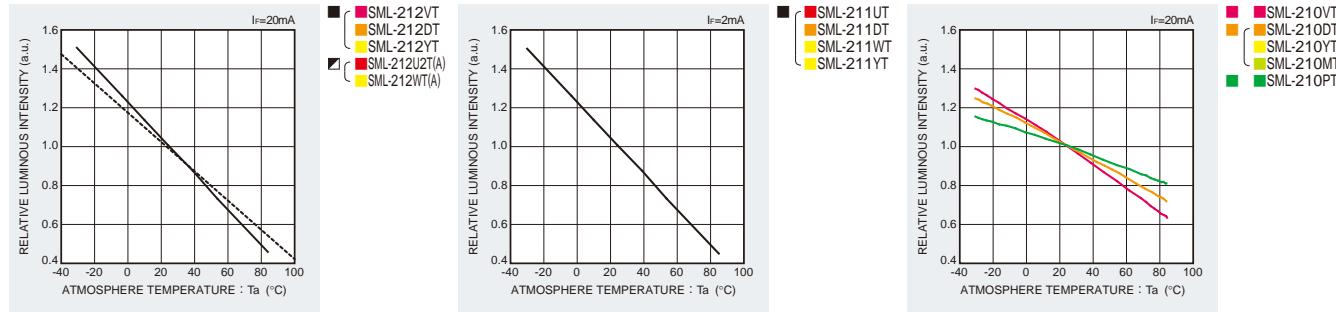
■ Luminous Intensity-Forward Current

■ ⌈ SML-212VT
    SML-212DT
    SML-212YT
☑ ⌈ SML-212U2T(A)
    SML-212WT(A)

■ ⌈ SML-211UT
    SML-211DT
    SML-211WT
    SML-211YT

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

■ Derating

■ ⌈ SML-212VT
    SML-212DT
    SML-212YT
☑ ⌈ SML-212U2T(A)
    SML-212WT(A)

■ ⌈ SML-211UT
    SML-211DT
    SML-211WT
    SML-211YT

■ SML-210VT
  SML-210DT
  SML-210YT
  SML-210MT
  SML-210PT
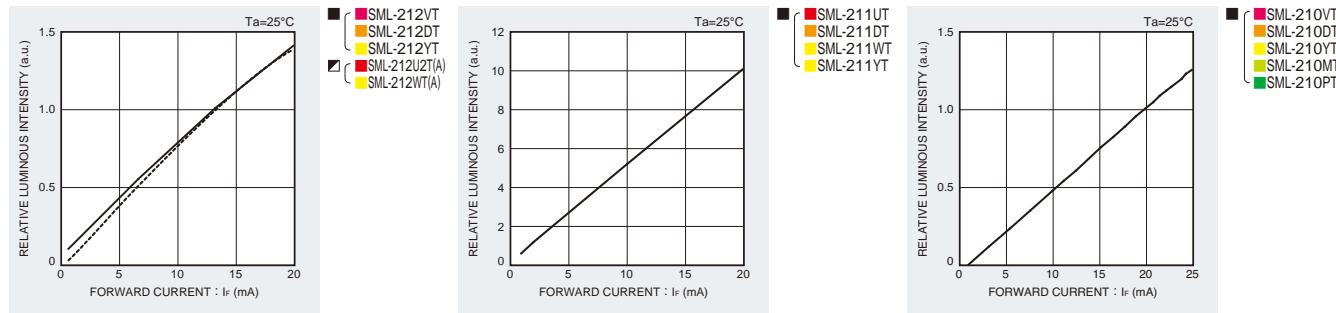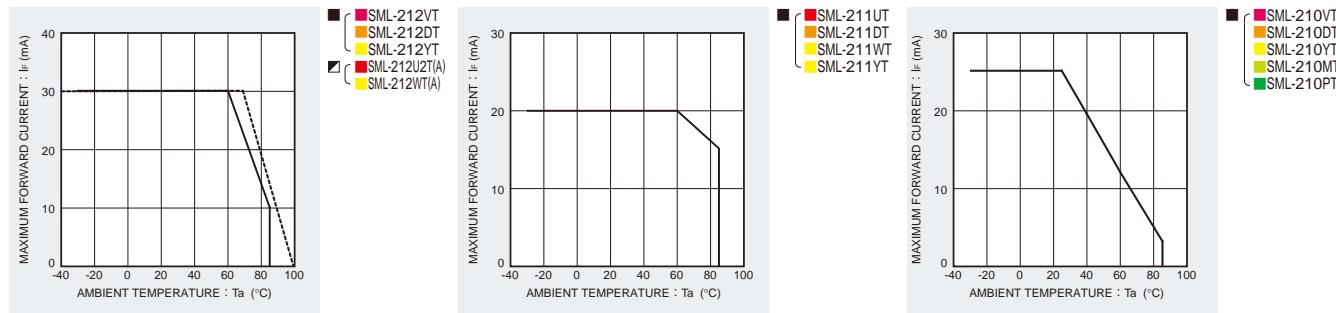
Rank Reference of Brightness

■ Red (V, U)

(Ta=25°C, IF=20mA)

Package size(mm)	Height(mm)	Luminous Intensity (mcd)	G 1.0 to 1.6	H 1.6 to 2.5	J 2.5 to 4.0	K 4.0 to 6.3	L 6.3 to 10	M 10 to 16	N 16 to 25	P 25 to 40	Q 40 to 63	R 63 to 100	S 100 to 160	T 160 to 250	U 250 to 400	V 400 to 630	W 630 to 1000	X 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)	Height(mm)	Luminous Intensity (mcd)	G 1.0 to 1.6	H 1.6 to 2.5	J 2.5 to 4.0	K 4.0 to 6.3	L 6.3 to 10	M 10 to 16	N 16 to 25	P 25 to 40	Q 40 to 63	R 63 to 100	S 100 to 160	T 160 to 250	U 250 to 400	V 400 to 630	W 630 to 1000	X 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)	Height(mm)	Luminous Intensity (mcd)	G 1.0 to 1.6	H 1.6 to 2.5	J 2.5 to 4.0	K 4.0 to 6.3	L 6.3 to 10	M 10 to 16	N 16 to 25	P 25 to 40	Q 40 to 63	R 63 to 100	S 100 to 160	T 160 to 250	U 250 to 400	V 400 to 630	W 630 to 1000	X 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)	Height(mm)	Luminous Intensity (mcd)	F 0.63 to 1.0	G 1.0 to 1.6	H 1.6 to 2.5	J 2.5 to 4.0	K 4.0 to 6.3	L 6.3 to 10	M 10 to 16	N 16 to 25	P 25 to 40	Q 40 to 63	R 63 to 100	S 100 to 160	T 160 to 250	U 250 to 400	V 400 to 630	W 630 to 1000	X 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

SML－210M□TT86N

| 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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