

SML-A1 Series

EXCELED™

1611 (0605)
1.6 × 1.15mm (t=0.55mm)

Features

- Side-view type
- 1.6 × 1.15mm, t=0.55mm

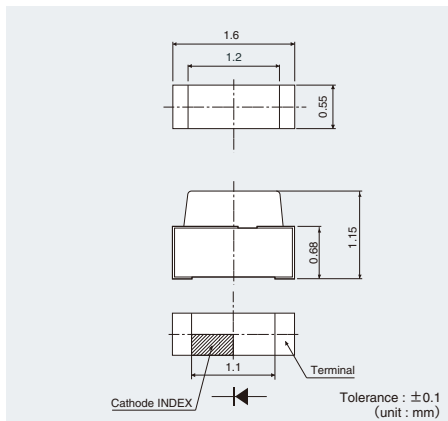


Specifications

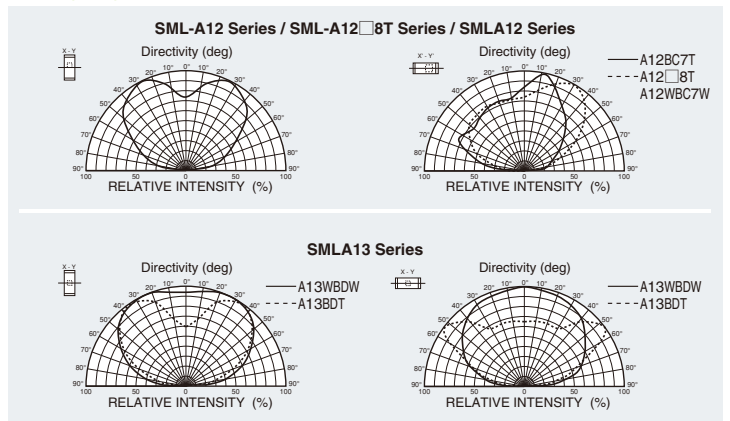
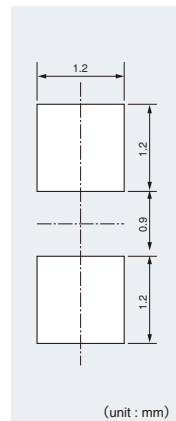
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)					Electrical and Optical Characteristics (Ta=25°C)																								
			Power Dissipation Pd (mW)	Forward Current If (mA)	Peak Forward Current Ifp (mA)	Reverse Voltage Vr (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage Vf (V)	Reverse Current Ir (μA)	Dominant Wavelength λD (nm)			Luminous Intensity Iv (mcd)																		
							Typ.	Max.	Max.	Min.*2	Typ.	Max.*2	Min.	Typ.	Max.	Min.	Typ.	Max.														
■ SML-A12V8T	AlGaInP on GaAs	Red	54	20			2.2			625	630	635	16	40																		
■ SML-A12U8T																			615	620	625	25	63									
■ SML-A12UT(J)																			75	30				2.0			619	624	629	36		
■ SML-A12D8T	AlGaInP on GaAs	Orange	54	20			2.2		10	602	605	608	40	100																		
■ SML-A12DT(J)																			75	30	100*1	5	-40 to +85	-40 to +100	2.0	20	5	606	609	20	36	20
■ SML-A12WT(J)																			Yellow	54	20							587	590	593	25	63
■ SML-A12Y8T	Yellowish Green	65	25						569	572	575	10	25																			
■ SML-A12M8T																Green	54	20							567	570	573	14	40			
■ SML-A12MT(J)	Green	65	25							557	560	563	2.5	6.3																		
■ SML-A12P8T																Blue	66								465	470	475	5	5.6	16	5	
■ SMLA12BC7T	InGaN	84	20	100*1	5					464		476	20	56	140																	20
■ SMLA13BDT																White	66								(x, y) (0.30,0.30)	5	22	56	5			
□ SMLA12WBC7W	74									(x, y) (0.31,0.31)	10	90	180	10																		
□ SMLA13WBDW																																

*1:Duty 1/10, 1kHz / *2:Reference

Dimensions



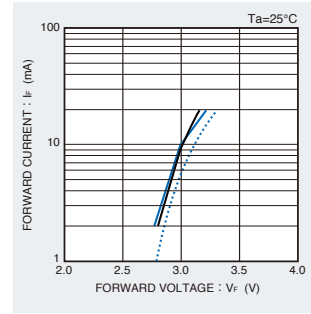
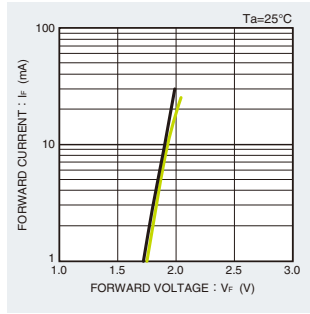
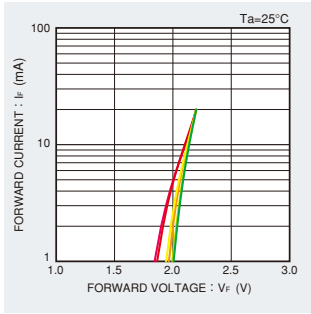
Recommended Solder Pattern Viewing Angle



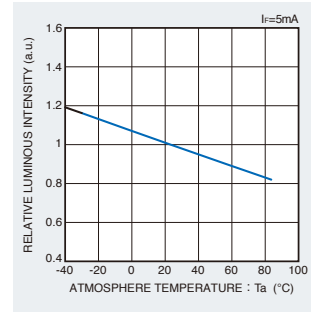
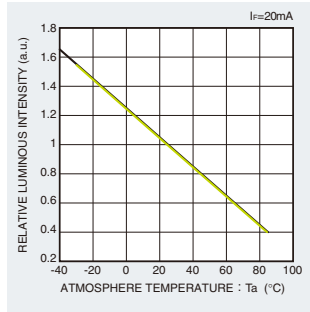
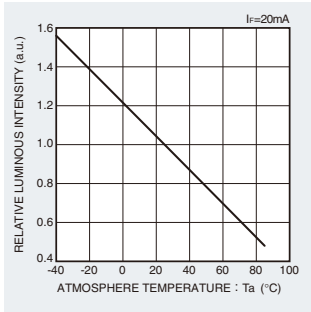
* EXCELED™ is ROHM's pending trademark.

Electrical Characteristics Curves

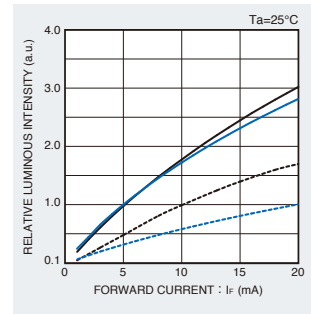
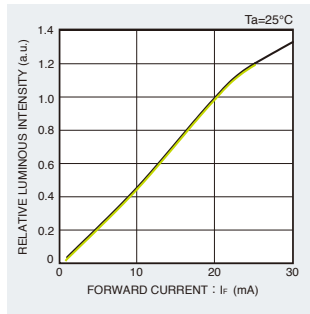
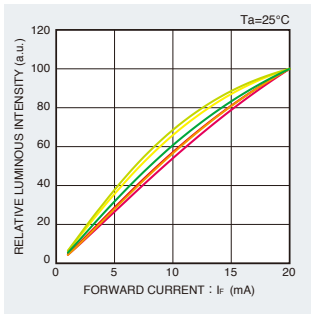
Forward Current-Forward Voltage



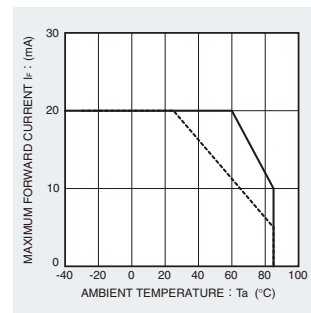
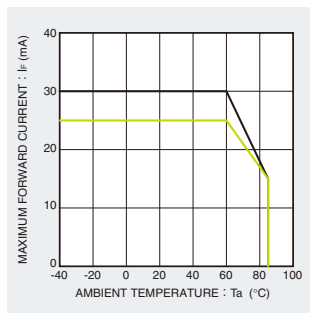
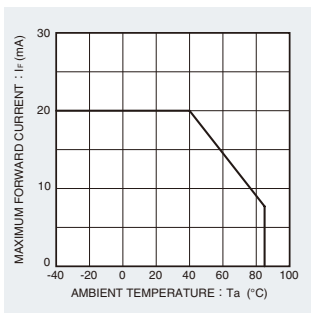
Luminous Intensity-Atmosphere Temperature



Luminous Intensity-Forward Current



Derating



SML-A1 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	
Side View Chip LEDs 16115	0.55								SML-A12V8T									
									SML-A12U8T									
									SML-A12UT*									

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	
Side View Chip LEDs 16115	0.55									SML-A12D8T								
										SML-A12DT*								

Yellow (Y)

(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	
Side View Chip LEDs 16115	0.55									SML-A12Y8T								
										SML-A12WT*								

Green (M, P)

(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	
Side View Chip LEDs 16115	0.55									SML-A12MT*								
										SML-A12M8T								
										SML-A12P8T								

Blue (B)

(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
		0.9 to 1.4	1.4 to 2.2	2.2 to 3.6	3.6 to 5.6	5.6 to 9.0	9 to 14	14 to 22	22 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900
Side View Chip LEDs 16115	0.55								SMLA12BC7T**2				SMLA13BDT			

White (WB)

(Ta=25°C, If=20mA)

Package size(mm) Height(mm)	Luminous Intensity (mcd)	P	Q	R	S	T	U	V	W	X1	X2	Y1	Y2	Z1
		25 to 36	36 to 56	56 to 90	90 to 140	140 to 220	220 to 360	360 to 560	560 to 900	900 to 1100	1100 to 1400	1400 to 1800	1800 to 2200	2200 to 2800
Side View Chip LEDs 16115	0.55	SMLA12WBC7W**2				SMLA13WBDW**1								

**Brightness on specification sheet include tolerance of within ± 10%.
**1: If=10mA **2: If=5mA

Part No. Construction

* "-" will be taken out for emitting color W/B/E series.

Dice classification code

(Special classification code) Chromaticity rank(for white LED)



2	High Brightness Type
3	Ultra High Brightness Type

V	Red:630nm
U	Red:620(624)nm
D	Orange:605(606)nm
Y	Yellow:587(590)nm
W	Yellow:590nm
M	Yellowish-Green:572nm
P	Green:560nm
B	Blue:470nm
WB	White

T	Transparent Colorless
W	MilkyWhite

T86	Cathode at sprocket hole side
T87	Reverse of T86
1	For white LED, cathode at sprocket hole side

- * 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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