

# SML-A1 Series

## EXCELED™

1611(0605)  
1.6×1.15mm(t=0.55mm)

Color Type V U D W  
Y M P B WB

### Features

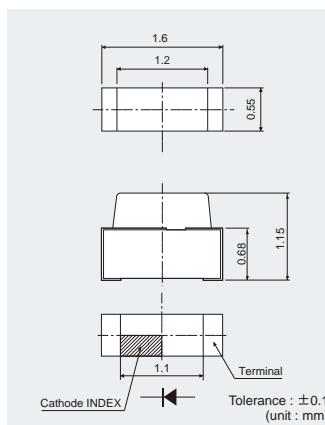
- Compact size side-view LEDs

### Specifications

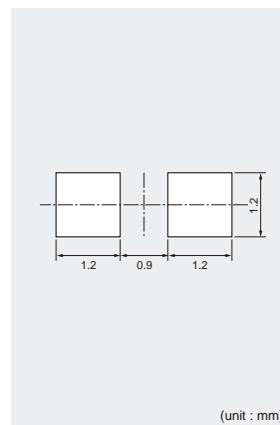
Part No.	Chip Structure	Emitting Color	Absolute Maximum Ratings (Ta=25°C)						Electrical and Optical Characteristics (Ta=25°C)					
			Power Dissipation Pd(mW)	Forward Current If(mA)	Peak Forward Current IfP(mA)	Reverse Voltage VR(V)	Operating Temperature Topr(°C)	Storage Temperature Tstg(°C)	Forward Voltage Vf Typ.(V)	Reverse Current Ir Max.(μA)	Vr(V)	Dominant Wavelength λD Min.(nm) Typ.(nm) Max.(nm)	λD If(mA) Min.(mcd) Typ.(mcd)	Luminous Intensity Iv If(mA)
■ SML-A12V8T	AlGaNP on GaAs	Red	54	20					2.2			625 630 635	16 40	
■ SML-A12U8T			75	30					2.0			615 620 625	25 63	
■ SML-A12UT(J)			54	20					2.2			619 624 629	36	
■ SML-A12D8T		Orange	75	30	100*1	5	-40 to +85	-40 to +100	2.0	20	5	602 605 608	40 100	
■ SML-A12DT(J)			54	20					2.2			606 609	20 36	20
■ SML-A12WT(J)		Yellow	75	30					2.0			587 590 593	63	
■ SML-A12Y8T			54	20					2.2			569 572 575	25	
■ SML-A12M8T		Yellowish Green	65	25					2.1	100		567 570 573	14 40	
■ SML-A12MT(J)			54	20					2.2	10		557 560 563	2.5 6.3	
■ SML-A12P8T		Green	68				-30 to +100		3.0			(520) 527 (535)	22 56	
■ SML-A12EC6T	InGaN	Blue	66	20	100*1	5		5	100	5	465 470 475	5.6 16		
■ SMLA12BC7T			84					2.9			464 476	5 24		
■ SMLA13BC8T		White	33	10	50*1			10			(X,Y) (0.30,0.30)	22 56		
□ SMLA12WBC7W														

\*1:Duty1/10, 1kHz / \*2:Reference

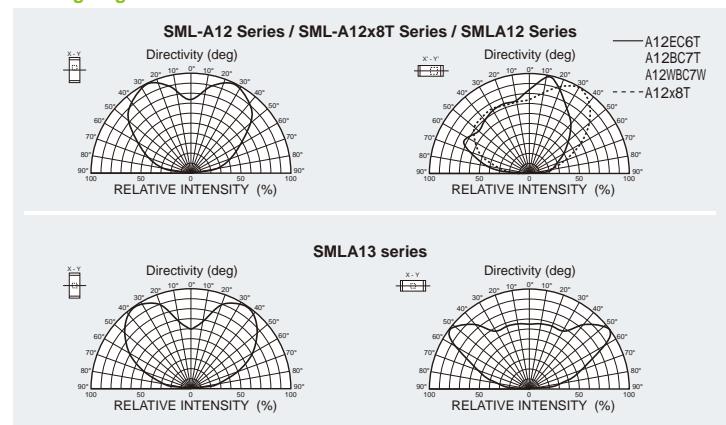
### Dimensions



### Recommended Solder Pattern



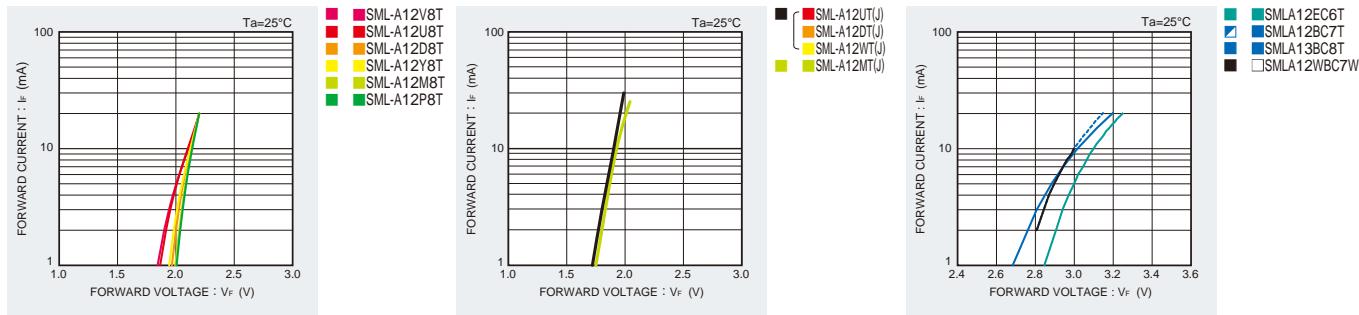
### Viewing Angle



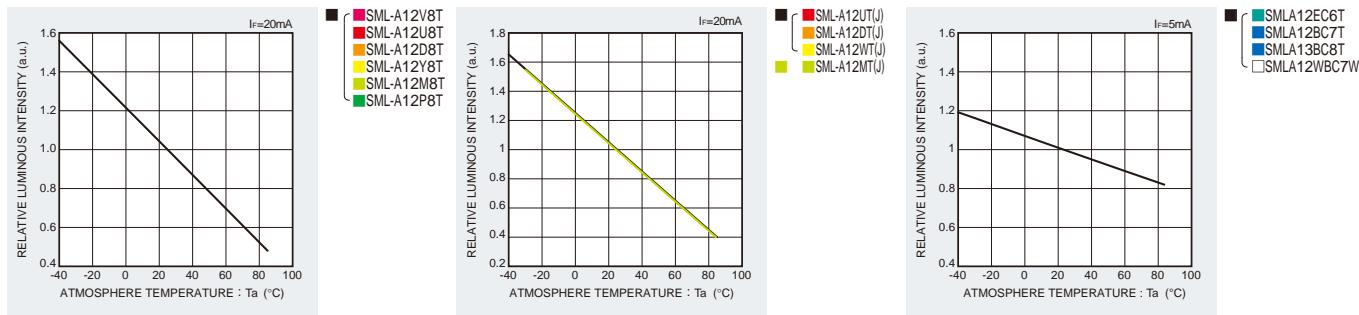
\*EXCELED™ is ROHM's pending trademark.

## Electrical Characteristics Curves

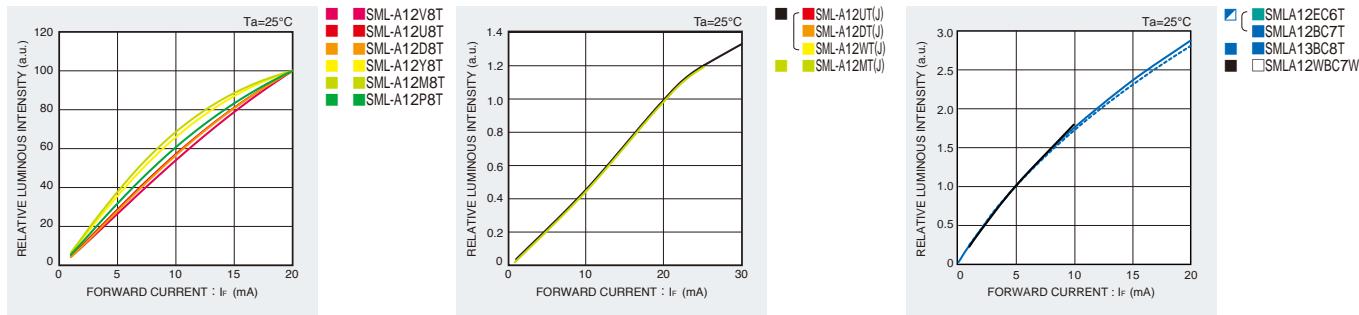
### Forward Current-Forward Voltage



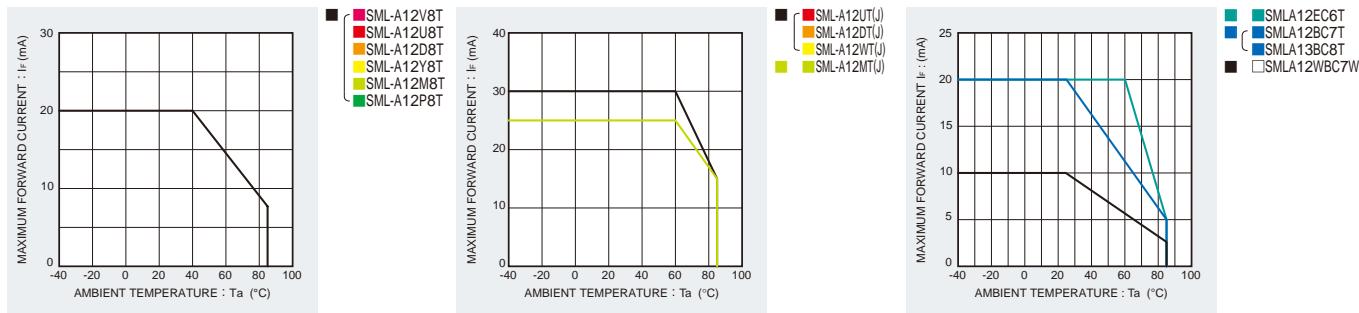
### Luminous Intensity-Atmosphere Temperature



### 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)	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)	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)	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)	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																			

### ■ Bluish Green (E)

		(Ta=25°C, If=5mA)																	
Package size(mm)	Height(mm)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X		
		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																	
SMLA12EC6T																			

### ■ Blue (B)

		(Ta=25°C, If=5mA)																	
Package size(mm)	Height(mm)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X		
		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																			
SMLA13BC8T																			

### ■ White (WB)

		(Ta=25°C, If=5mA)																	
Package size(mm)	Height(mm)	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X		
		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																	
SMLA12WBC7W																			

\* “-” will be taken out for emitting color  
B/E series.

Dice classification code

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

## Notes

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