

By Category PDF

Category LED

Opto Devices



SMD LEDs ————— **240**

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SMD LEDs ROHM's chip LEDs are designed for automatic surface mount processes and are available in a wide variety of package sizes (from 1.0x0.6mm)

Red (V, U) Quick Reference of Brightness

Package Structure	Package Size (mm)	Height (mm)	Luminous Intensity (mcd)	I _F (mA)	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	1600 to 2500	2500 to 3120				
Mini-mold	1006	0.2	1	20	SML-P11VT (R)		SML-P11UT (R)		SML-P12VT (R)		SML-P12UT (R)		SML-P12U2T (R)		SML-E12V8W		SML-E12U8W		*SML-E12UW							
					SML-D12L8W		SML-D15VW		SML-D14VW (A)*		SML-D13VW (A)*		SML-D12V1W		SML-D12V8W		SML-D15UW		SML-D15U2W							
		0.36																								
	1608	0.55	20																							
		0.8																								
	Reflector	20125	0.8	20																						
		3020	1.3	20	SML-010VT		SML-011VT (A)*		SML-011UT		SML-012VT (A)*		SML-012V8T		SML-012U8T		SML-012UT		SML-013UT		SML-Z14V4T*		SML-Z14U4T*			
PLCC2	3528	1.9	50																							
Side View (mold)	16115	0.55	20																							
Reverse Mount	34125	1.1	10																							
Lens	1608	1.24	20																							
	3216	1.85																								
Package Structure	Package Size (mm)	Height (mm)	Luminous Intensity (mcd)	I _F (mA)	4.5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 12	12 to 14	14 to 16	16 to 18	18 to 20	20 to 22	22 to 25	CSL0701UT									

Orange (D) Quick Reference of Brightness

Package Structure	Package Size (mm)	Height (mm)	Luminous Intensity (mcd)	I _F (mA)	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	1600 to 2800				
Mini-mold	1006	0.2	1	20	SML-P11DT (R)		SML-P12DT (R)		*SML-E12DW		SML-E12D8W		SML-D15DW		SML-D14DW (A)*		SML-D13DW (A)*		SML-D12D8W		SML-D12D1W				
	0.36																								
1608	0.55	20																							
	0.8																								
Reflector	20125	0.8	20	SML-010DT		SML-011DT		SML-011DT (A)*		SML-012DT (A)*		SML-012D8T		SML-012DT		SML-Z14D4T*									
	3020	1.3	20																						
PLCC2	3528	1.9	50																						
Side View (mold)	16115	0.55	20																						
Reverse Mount	34125	1.1	10																						
Lens	1608	1.24	20																						
	3216	1.85																							
Package Structure	Package Size (mm)	Height (mm)	Luminous Intensity (mcd)	I _F (mA)	6 to 7	7 to 8	8 to 9	9 to 10	10 to 12	12 to 14	14 to 16	16 to 18	18 to 20	20 to 22	22 to 24	24 to 27	27 to 30	30 to 33	33 to 36	36 to 40	40 to 45	45 to 56			
Lens	2924	3.1	20	CSL0701DT																					

*Please note that the brightness of some products may fall between ranks (half rank).
 *1 Brightness on specification sheet include tolerance of within ±10%. Note: Please be sure to refer the specifications about the rank.

SMD LEDs

Green (E)/Blue Green (E2, E3) Quick Reference of Brightness

Package Structure	Package Size (mm)	Height (mm)	Luminous Intensity (mcd)	I _F (mA)	9.0 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	900 to 1400	1400 to 2200	2200 to 3600	3600 to 5600
Mini-mold	1006	0.2	5		SMLP14ECNW													
		0.36			SMLEN3EC8T													
	1608	0.55	5	SMLD12EN1W														
		1.24		SMLD12E2N1W SMLD12E3N1W														
Reflector	20125	0.8	5	CSL1001ET														
	3020	1.3		☆SMLM22EN1T (C) SMLMN2ECT (C)														
PLCC2	3528	1.9	20	SML012ENT														
				SMLZ24E2N3T SMLZN4EGT (A)*														
Side View (mold)	16115	0.55	5	SMLA12ENT														
Lens	3216	1.85																
	1608	1.24	20	CSL0901ET														
				CSL0902ET														
				SMLS14ENT														

Blue (B) Quick Reference of Brightness

Package Structure	Package Size (mm)	Height (mm)	Luminous Intensity (mcd)	I _F (mA)	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	900 to 1400
Mini-mold	1006	0.2	5	SMLP14BCNW																
		0.36		SMLEN3BC8T																
	1608	0.55	5	SMLD12BN1W																
		1.24		CSL1001BT																
Reflector	1608	0.55	5	CSL1103BAT (C)																
	20125	0.8		SMLM22BN1T (C) SMLMN2BCT (C)																
	3020	1.3	20	SML013BNT																
					SMLZ24BN3T SMLZN4BGT (A)*															
Side View (mold)	16115	0.55	5	SMLA12BN8T																
Reverse Mount	34125	1.1		20	SML813BNT															
Lens	3216	1.85	20		SMLS14BNT															
	1608	1.24		CSL0901BT																
				CSL0902BT																

White (WB) Quick Reference of Brightness

Package Structure	Package Size (mm)	Height (mm)	Luminous Intensity (mcd)	I _F (mA)	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	900 to 1100	1100 to 1400	1400 to 1800	1800 to 2200	2200 to 2800	2800 to 3600	3600 to 7000	7000 to 8500
Mini-mold	1006	0.2	5	SMLP14WBCNIW																		
		0.36		SMLEN3WBC8W																		
	1608	0.55	5	SMLD12WBN1W																		
Side View (Reflector)	16115	0.55		5	SMLA12WBN7W																	
Reverse Mount	2812	0.8	20		CSL0416WBCW																	
Reflector	34125	1.1		2	SML811WBCN1W																	
		0.55	CSL1103WBxW																			
	20125	0.8	5	SMLM22WBN1CW1T (C) SMLMN2WB1CW (C)																		
					CSL1104WBxW																	
PLCC2	3528	1.9	20	SMLZN4WBGUW (A)*																		
Reflector	4520	0.6		90	SMLK18WBJCW																	

*Please note that the brightness of some products may fall between ranks (half rank).

*1 Brightness on specification sheet include tolerance of within ±10%. Note: Please be sure to refer the specifications about the rank.

☆: Under Development

2 Colors Quick Reference of Brightness

Package Structure	Package Size (mm)	Height (mm)	I _F (mA)	Luminous Intensity (mcd) Emitting Color	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		
Mini-mold	1010	0.2	20	Red											
				Yellow Green											
				Red											
	1315	0.6	5	Blue											
				Red											
				Yellow Green											
			20	Red											
				Yellow Green											
				Orange											
				Yellow Green											
				Yellow											
				Yellow											
1608	0.55	5	Yellow Green												
			Red												
			Yellow												
		20	Red												
			Yellow												
			Yellow												
Reflector	3025	1.3	20	Orange											
				Yellow Green											
				Red											
				Yellow Green											
				Yellow											
				Yellow											
Reverse Mount	34125	1.1	20	Yellow Green											
				Red											
				Yellow Green											

3 Colors Quick Reference of Brightness


Package Structure	Package Size (mm)	Height (mm)	I _F (mA)	Luminous Intensity (mcd) Emitting Color	5.6 to 9.0	9.0 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	900 to 1400	1400 to 1800	
Mini-mold	1010	0.2	5	Red														
				Green														
				Blue														
1510	0.2	5	Red															
			Green															
			Blue															
Reflector	1816	0.5	20	Red														
				Green														
				Blue														
				Red														
				Green														
				Blue														
	3528	0.6	20	Red														
				Green														
				Blue														
				Red														
				Green														
				Blue														
Side View (Reflector)	29135	1.0	20	Red														
				Green														
				Blue														
	6922	2.15	Red															
			Green															
			Blue															

*1 Brightness on specification sheet include tolerance of within ±10%. Note: Please be sure to refer the specifications about the rank.


SMD LEDs

(PICOLED™ Mold type 0402 (1006M))																				
Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)						Electrical and Optical Characteristics (T _a =25°C)											
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FSM} (mA)	Reverse Voltage V _R (V)	Operating Temperature T _{opr} (°C)	Storage Temperature T _{stg} (°C)	Forward Voltage V _F (Typ (V), I _F (mA))	Reverse Current I _R (Max (μA), V _R (V))	Dominant Wavelength λ _d /Chromaticity Coordinates (x, y)		Luminous Intensity I _v (Min (mcd), Typ (mcd), Max (mcd), I _F (mA))				Automotive Grade AEC-Q101/AEC-Q102			
PICOLED™-eco 1.0x0.6 (t=0.2)	Red	SML-P11VT (R)	50	20	100 ^{*2}	5	-40 to +85	-40 to +100	1.8	1	10	5	626	1	2	4	6	1	—	
		SML-P11UT (R)	50	20	100 ^{*2}	5	-40 to +85	-40 to +100	1.8	1	10	5	621	1	3	3	3	1	—	
	Orange	SML-P11DT (R)	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	1.9	1	10	5	605	1	4	7	16	1	—	
	Yellow	SML-P11YT (R)	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	1.9	1	10	5	586	1	4	8	16	1	—	
	Yellow Green	SML-P11MT (R)	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	1.9	1	10	5	569	1	1	2	4	1	—	
PICOLED™ 1.0x0.6 (t=0.2)	Red	SML-P12VT (R)	50	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.0	20	10	5	630	20	25	60	100	20	—	
		SML-P12UT (R)	50	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.0	20	10	5	620	20	40	85	160	20	—	
		SML-P12U2T (R)	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	615	25	70	—	—	—		
	Orange	SML-P12DT (R)	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	605	20	63	100	250	20	—	
		SML-P12Y3T (R)	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	596	40	90	250	—	—		
		SML-P12YT (R)	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	590	20	100	160	20	—		
	Yellow	SML-P12WT (R)	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	585	25	70	—	—	—		
		SML-P12Y2T (R)	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	580	16	50	100	—	—		
		SML-P12M2T (R)	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	576	20	10	25	63	20	—	
	Yellow Green	SML-P12MT (R)	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	572	10	25	63	20	—		
		SML-P13FT (R)	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	566	6	18	40	20	—		
	Green	SML-P13PT (R)	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	560	20	4	10	16	20	—	
		New SMLP14ECNW	34	10	50 ^{*2}	5	-40 to +85	-40 to +100	3.0	5	100	5	527	5	56	110	220	5	—	
	Blue	New SMLP14BCNW	33	10	50 ^{*2}	5	-40 to +85	-40 to +100	2.9	5	100	5	470	5	9	25	56	5	—	
	White	SMLP14WBCN1W	33	10	50 ^{*2}	5	-40 to +85	-40 to +100	2.9	5	100	5	(x, y) (0.30, 0.30)	5	90	180	360	5	—	
(Mold type 0603 (1608M))																				
1.6x0.8 (t=0.36)	Red	SML-E12UW	62	25	60 ^{*1}	5	-30 to +85	-40 to +85	2.0	20	10	5	624	20	36	85	280	20	—	
	Orange	SML-E12DW	62	25	60 ^{*1}	5	-30 to +85	-40 to +85	2.0	20	10	5	607	20	56	150	450	20	—	
	Red	SML-E12V8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	630	20	16	40	100	20	—	
		SML-E12U8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	620	25	63	160	20	—		
	Orange	SML-E12D8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	605	20	40	100	250	20	—	
	Yellow	SML-E12Y8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	590	20	25	63	160	20	—	
	Yellow Green	SML-E12M8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	572	20	10	25	63	20	—	
	Green	SML-E12P8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	560	20	3	6	16	20	—	
		New SMLN3EC8T	68	20	100 ^{*2}	5	-40 to +85	-40 to +100	3.0	5	10	5	527	5	56	120	360	5	—	
	Blue	SMLN3BC8T	66	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.9	5	10	5	470	5	14	40	90	5	—	
	White	SMLN3WBC8W	33	10	50 ^{*2}	5	-40 to +85	-40 to +100	2.9	5	10	5	(x, y) (0.30, 0.30)	5	56	120	220	5	—	
	1.6x0.8 (t=0.55)	Yellow	SML-D11YW	67	25	100 ^{*2}	5	-40 to +85	-40 to +100	1.9	2	10	5	588	2	2	4	6	2	—
			SML-D12W8W (A)	52	20	100 ^{*2}	12	-40 to +100	-40 to +100	2.0	2	10	12	630	25	40	63	20	—	
		Red	SML-D12V1W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	620	20	40	63	100	20	—
			SML-D12U1W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	605	20	63	100	160	20	—
Orange		SML-D12D1W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	590	20	63	100	160	20	—	
Yellow		SML-D12Y1W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	572	20	10	25	63	20	—	
Yellow Green		SML-D12M1W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	572	20	16	30	63	20	—	
		SML-D12L8W	50	20	100 ^{*5}	5	-40 to +85	-40 to +100	2.0	20	10	5	635	10	16	40	—	—		
Red		SML-D12V8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	630	20	16	40	100	20	YES	
		SML-D12U8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	620	25	63	160	20	YES		
Orange		SML-D12D8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	605	20	40	100	250	20	YES	
Yellow		SML-D12Y8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	590	20	25	63	160	20	YES	
		SML-D12Y3W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	581	16	40	100	20	—		
Yellow Green		SML-D12M8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	572	20	10	25	63	20	YES	
		SML-D12FW	67	25	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	565	14	18	28	—	—		
Green	SML-D12P8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	560	20	3	6	16	20	—		
	SMLD12EN1W	70	20	100 ^{*2}	5	-40 to +100	-40 to +100	3.0	5	100	5	527	5	56	140	220	5	YES		
Blue	SMLD12E2N1W	66	20	100 ^{*2}	5	-40 to +100	-40 to +100	2.9	5	10	5	505	5	56	120	140	5	YES		
	SMLD12E3N1W	66	20	100 ^{*2}	5	-40 to +100	-40 to +100	2.9	5	10	5	496	5	85	—	—	YES			
Blue	SMLD12BN1W	66	20	100 ^{*2}	5	-40 to +100	-40 to +100	2.9	5	10	5	470	5	14	40	56	5	YES		
White	SMLD12WBN1W	66	20	100 ^{*2}	5	-40 to +100	-40 to +100	2.9	5	10	5	(x, y) (0.295, 0.280)	5	56	120	220	5	YES		
Red	SML-D13VW (A)	72	30	100 ^{*2}	5	-40 to +100	-40 to +100	2.0	20	10	5	630	20	36	55	90	20	YES		
	SML-D13UW (A)	72	30	100 ^{*2}	5	-40 to +100	-40 to +100	2.0	20	10	5	620	20	56	85	140	20	YES		
Orange	SML-D13DW (A)	72	30	100 ^{*2}	5	-40 to +100	-40 to +100	2.0	20	10	5	605	20	71	120	180	20	YES		
Yellow	SML-D13WW (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2.1	20	10	5	587	20	71	110	180	20	YES		
Yellow Green	SML-D13MW (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2.1	20	10	5	571	20	28	45	71	20	YES		
Red	SML-D13U8W	52	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	620	20	40	70	160	20	—		
	SML-D13Y8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	590	20	63	100	160	20	—		
Yellow Green	SML-D13Y2W	78	30	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	581	40	80	—	—	—			
	SML-D13M8W	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	572	20	16	30	63	20	—		
Green	SML-D13FW	81	30	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	565	20	18	22	36	20	YES		
Red	SML-D14VW (A)	72	30	100 ^{*2}	5	-40 to +100	-40 to +100	2.0	20	10	5	630	20	71	100	180	20	YES		
	SML-D14U2W (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2.0	20	10	5	615	90	160	224	20	YES			
Orange	SML-D14DW (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2.0	20	10	5	605	20	112	200	280	20	YES		
	SML-D14YW (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2.1	20	10	5	590	20	112	200	280	20	YES		
Yellow	SML-D14WW (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2.1	20	10	5	587	20	112	180	2				


(Mold type 0603 (1608M))

Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)						Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/AEC-Q102		
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F				Reverse Current I _R		Dominant Wavelength λ _D		Luminous Intensity I _v				
									Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ* (nm)	I _F (mA)	Min (mcd)	Typ (mcd)	Max (mcd)	I _F (mA)			
 1.6×0.8 (t=1.24)	Green	CSL1001ET (C)	35	10	50 ^{*2}	5	-40 to +100	-40 to +100	3.0	5	10	5	527	5	90	140	224	5	YES		
	Blue	CSL1001BT (C)	33	10	50 ^{*2}	5	-40 to +100	-40 to +100	2.8	1	10	5	470	1	4	6	9	1	YES		

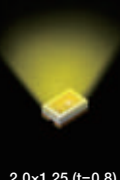
(Mold type 0805 (20125M))

Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)						Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/AEC-Q102		
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F				Reverse Current I _R		Dominant Wavelength λ _D / Chromaticity Coordinates (x, y)		Luminous Intensity I _v				
									Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ* (nm)	I _F (mA)	Min (mcd)	Typ (mcd)	Max (mcd)	I _F (mA)			
 2.0×1.25 (t=0.8)	Red	SML-H12V8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	630	20	16	25	63	20	YES		
		SML-H12U8T											620		25	40	100		YES		
	Orange	SML-H12D8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	605	20	40	63	160	20	YES		
	Yellow	SML-H12Y8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	590	20	40	63	160	20	YES		
	Yellow Green	SML-H12M8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	572	20	10	25	40	20	YES		
Green	SML-H12P8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	560	20	3	4	10	20	YES			


(Reflector type 0603 (1608M))

Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)						Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/AEC-Q102		
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F				Reverse Current I _R		Dominant Wavelength λ _D / Chromaticity Coordinates (x, y)		Luminous Intensity I _v				
									Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ* (nm)	I _F (mA)	Min (mcd)	Typ (mcd)	Max (mcd)	I _F (mA)			
 1.6×0.8 (t=0.55)	Green	New CSL1101PB11W (C)	68	20	100 ^{*2}	5	-40 to +110	-40 to +110	2.9	5	10	5	(x, y) (0.370, 0.590)	5	22	32	45	5	YES		
	Blue	New CSL1103BAT (C)	152	40	100 ^{*2}	12	-40 to +110	-40 to +110	3.2	20	10	5	470	20	220	400	560	20	YES		
		New CSL1103SB11W (C)											(x, y) (0.183, 0.154)		780	1,100	1,400		YES		
		New CSL1103WBAW											(x, y) (0.282, 0.249)		900	1,500	2,200		20	YES	
	New CSL1103WBBW	(x, y) (0.261, 0.261)	YES																		
	New CSL1103WBCW	(x, y) (0.303, 0.294)	YES																		
	New CSL1103WBDW	(x, y) (0.284, 0.303)	YES																		
	White	New CSL1104WBAW	144	40	100 ^{*2}	5	-40 to +110	-40 to +110	2.9	20	10	5	(x, y) (0.282, 0.249)	20	1,400	2,000	2,800	20	YES		
		New CSL1104WBBW											(x, y) (0.261, 0.261)						YES		
		New CSL1104WBCW											(x, y) (0.303, 0.294)						YES		
New CSL1104WBDW		(x, y) (0.284, 0.303)											YES								

(Reflector type 0805 (20125M))

Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)						Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/AEC-Q102		
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F				Reverse Current I _R		Dominant Wavelength λ _D / Chromaticity Coordinates (x, y)		Luminous Intensity I _v				
									Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ* (nm)	I _F (mA)	Min (mcd)	Typ (mcd)	Max (mcd)	I _F (mA)			
 2.0×1.25 (t=0.8)	Red	SML-M13VT	75	30	100 ^{*2}	5	-40 to +85	-40 to +100	2	20	10	5	630	20	40	75	100	20	—		
		SML-M13UT											620		63	120	160		—		
	Orange	SML-M13DT	75	30	100 ^{*2}	5	-40 to +85	-40 to +100	2	20	10	5	605	20	100	160	250	20	—		
	Yellow	SML-M13YT	75	30	100 ^{*2}	5	-40 to +85	-40 to +100	2	20	10	5	590	20	100	160	250	20	—		
	Yellow Green	SML-M13MT	81	30	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	572	20	25	45	100	20	—		
	Green	SML-M13PT	81	30	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	560	20	6	16	25	20	—		
		SMLMN2ECT (C)	70	20	100 ^{*2}	12	-40 to +100	-40 to +100	3	5	10	12	527	5	56	140	360	5	YES		
	Blue	SMLMN2BCT (C)	68	20	100 ^{*2}	12	-40 to +100	-40 to +100	2.9	5	10	12	470	5	14	36	90	5	YES		
	White	SMLMN2WB1CW (C)	68	20	100 ^{*2}	12	-40 to +100	-40 to +100	2.9	5	10	12	(x, y) (0.30, 0.28)	5	56	140	220	5	YES		

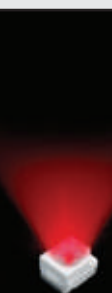
(Reflector type 3020M)


Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)						Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/AEC-Q102		
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F				Reverse Current I _R		Dominant Wavelength λ _D / Chromaticity Coordinates (x, y)		Luminous Intensity I _v				
									Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ* (nm)	I _F (mA)	Min (mcd)	Typ (mcd)	Max (mcd)	I _F (mA)			
 3.0×2.0 (t=1.3)	Red	SML-010VT	70	25	60 ^{*1}	4	-30 to +85	-40 to +85	2	20	10	4	650 ^{*6}	20	2	6	18	20	—		
	Orange	SML-010DT	70	25	60 ^{*1}	4	-30 to +85	-40 to +85	2	20	100	4	610 ^{*6}	20	4	10	28	20	—		
	Yellow	SML-010YT	70	25	60 ^{*1}	4	-30 to +85	-40 to +85	2.1	20	100	4	585 ^{*6}	20	2	6	18	20	—		
	Yellow Green	SML-010MT	70	25	60 ^{*1}	4	-30 to +85	-40 to +85	2.2	20	100	4	570 ^{*6}	20	6	25	45	20	—		
	Green	SML-010PT	70	25	60 ^{*1}	4	-30 to +85	-40 to +85	2.2	20	100	4	555 ^{*6}	20	2	6	18	20	—		
	Red	SML-011UT	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2	20	10	5	630 ^{*6}	20	22	63	180	20	—		
	Orange	SML-011DT	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2	20	10	5	611 ^{*6}	20	22	63	180	20	—		
	Yellow	SML-011YT	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2	20	10	5	590 ^{*6}	20	22	63	180	20	—		
	Red	SML-011VT (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2	10	10	5	639 ^{*6}	10	14	28	56	10	—		
	Orange	SML-011DT (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2	10	10	5	611 ^{*6}	10	22	45	90	10	—		
	Yellow	SML-011YT (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2	10	10	5	590 ^{*6}	10	11	22	45	10	—		
	Red	SML-012VT (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2	20	10	5	630	20	36	71	140	20	—		
		SML-012V8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2						25	63	160		—		
		SML-013UT	75	30	100 ^{*2}	5	-30 to +85	-40 to +100	2						90	220	710		—		
		SML-012U8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2						40	100	250		—		
		SML-012UT	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2						36	100	280		—		
		SML-012DT (A)	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2						71	140	280		—		
	Orange	SML-012D8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2	20	10	5	605	20	63	160	400	20	—		
		SML-012DT	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2						36	100	280		—		
	Yellow	SML-012YT (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2	20	10	5	587	20	56	112	224	20	—		
		SML-012Y8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2						40	100	250		—		
		SML-012YT	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2						36	100	280		20	—	
		SML-013YT	75	30	100 ^{*2}	5	-40 to +85	-40 to +100	2.1						100	250	630		—		
	Yellow Green	SML-012WT (A)	75	30	100 ^{*2}	5	-40 to +100	-40 to +100	2	20	10	5	572	20	140	280	450	20	—		
	SML-012M8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	16						40	100	20		—		
	Green	SML-012PT (A)	62	25	60 ^{*2}	5	-40 to +100	-40 to +100	2.1	20	10	5	560	20	9	36	—	20	—		
		SML-012P8T	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2						3	18	25		—		
		SML012ENT	84	20	100 ^{*2}	5	-30 to +85	-40 to +100	3.3						20	100	5		525	20	140
	Blue	New SML013BNT	78	20	100 ^{*2}	5	-30 to +85	-40 to +100	3.2	20	100	5	470	20	90	250	560	20	—		



*1 Duty:1/5, 200Hz *2 Duty:1/10, 1kHz *3 Duty:1/20, 1ms *4 Duty:1/5, 1kHz *5 Duty:1/10, pulse width 10ms Max *6 Peak wavelength () : Reference
 *Brightness for white color is noted with chromaticity coordinate (x, y).
 Note: AutomotiveGrade products are indicated by a 'C' at the end of the part number. For details, please contact a sales representative.



LEDs

SMD LEDs

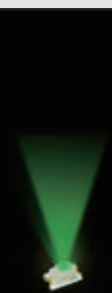
(Reflector type PLCC (3528M))																			
Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)					Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/AEC-Q102	
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F		Reverse Current I _R		Dominant Wavelength λ _d / Chromaticity Coordinates (x, y)		Luminous Intensity I _v				
							Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ* (nm)	I _F (mA)	Min (mcd)	Typ (mcd)	Max (mcd)	I _F (mA)			
	Red	SML-Z14V4T	189	70	200*2	12	-40 to 100	-40 to 100	2	50	10	12	630	50	140	280	560	50	—
		SML-Z14VT (A)	168						1.9	20				20	56	112	180	20	YES
		SML-Z14U4T	189						2	50				50	280	560	1,120	50	—
		SML-Z14UT (A)	168						1.9	20				20	112	224	355	20	YES
	Orange	SML-Z14D4T	189	70	200*2	12	-40 to 100	-40 to 100	2	50	10	12	605	50	355	710	1,400	50	—
		SML-Z14DT (A)	168						1.9	20				20	140	280	450	20	YES
	Yellow	SML-Z14Y4T	189	70	200*2	12	-40 to 100	-40 to 100	2.1	50	10	12	590	50	355	710	1,400	50	—
		SML-Z14YT (A)	175						2	20				20	140	280	450	20	YES
	Yellow Green	SML-Z14M4T	189	70	200*2	12	-40 to 100	-40 to 100	2.1	50	10	12	572	50	112	224	450	50	—
		SML-Z14MT (A)	175						2	20				20	45	90	140	20	YES
	Green	SML-Z14F4T	189	70	200*2	12	-40 to 100	-40 to 100	2.1	50	10	12	565	50	56	120	180	50	—
		SML-Z14FT (A)	175						2	20				20	45	71	20	YES	
		SML-Z14P4T	189						2.1	50				50	56	120	180	50	—
		SML-Z14PT (A)	175						2	20				20	56	120	180	50	—
New SMLZ14EGT (A)		120	30						100*2	5				-40 to 100	-40 to 100	3.4	20	5	528
SMLZN4BG4T (A)	114	30	100*2	0.9	-40 to 85	-40 to 100	3.3	20	—	470	20	140	300			450	20	YES	
SMLZN4WBG4W (A)	114	30	100*2	0.9	-40 to 85	-40 to 100	3.3	20	—	(x, y) (0.30, 0.28)	20	1,800	2,400			3,600	20	YES	
SMLZ24E2N3T (C)	152	40	100*2	—	-40 to 100	-40 to 100	3.2	20	—	505	20	900	1,140			1,800	20	YES	
SMLZ24BN3T (C)	114	30	100*2	0.9	-40 to 100	-40 to 100	3.3	20	—	470	20	220	300			450	20	YES	

(Reflector type (4520M))																					
Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)					Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/AEC-Q102			
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F		Reverse Current I _R		Chromaticity Coordinates*		Luminous Intensity I _v				Luminous Flux Φ _v		
							Typ (V)	I _F (mA)	Max (μA)	V _R (V)	(x, y)	I _F (mA)	Min (mcd)	Typ (mcd)	Max (mcd)	I _F (mA)	Typ (lm)	I _F (mA)			
	White	New SMLK18WBNCW	675	150	230*6	5	-40 to +100	-40 to +100	3.9	90	10	5	(0.30, 0.28)	90	4,800	5,900	8,500	90	21	90	—

(Side View type)																			
Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)					Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/AEC-Q102	
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F		Reverse Current I _R		Dominant Wavelength λ _d / Chromaticity Coordinates (x, y)		Luminous Intensity I _v				
							Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ* (nm)	I _F (mA)	Min (mcd)	Typ (mcd)	Max (mcd)	I _F (mA)			
	Red	SML-A12V8T	54	20	100*2	5	-40 to +85	-40 to +100	2.2	20	10	5	630	20	16	40	100	20	—
		SML-A12U8T	54	20	100*2	5	-40 to +85	-40 to +100	2.2	20	10	5	620	25	63	160	20	—	
	Orange	SML-A12D8T	54	20	100*2	5	-40 to +85	-40 to +100	2.2	20	10	5	605	20	40	100	250	20	—
	Yellow	SML-A12Y8T	54	20	100*2	5	-40 to +85	-40 to +100	2.2	20	10	5	590	20	25	63	160	20	—
	Yellow Green	SML-A12M8T	54	20	100*2	5	-40 to +85	-40 to +100	2.2	20	10	5	572	20	10	25	63	20	—
	Green	SML-A12P8T	54	20	100*2	5	-40 to +85	-40 to +100	2.2	20	10	5	560	20	3	6	16	20	—
	Red	SML-A12UT (J)	75	30	100*2	5	-40 to +85	-40 to +100	2.0	20	10	5	624	20	36	100	280	20	—
	Orange	SML-A12DT (J)	75	30	100*2	5	-40 to +85	-40 to +100	2.0	20	10	5	606	20	36	100	280	20	—
	Yellow	SML-A12WT (J)	75	30	100*2	5	-40 to +85	-40 to +100	2.0	20	10	5	590	20	36	63	180	20	—
	Yellow Green	SML-A12MT (J)	65	25	100*2	5	-30 to +85	-40 to +85	2.1	20	100	5	570	20	14	40	110	20	—
	Yellow	SML-A15YT	87	35	100*2	5	-40 to +100	-40 to +100	2.1	20	10	5	590	20	180	—	280	20	—
	Green	New SMLA12ENT	68	20	100*2	5	-40 to +85	-40 to +100	3.0	5	100	5	527	5	22	56	140	5	—
	Blue	New SMLA12BN8T	66	20	100*2	5	-40 to +85	-40 to +100	2.9	5	10	5	470	5	22	36	56	5	—
	White	New SMLA12WBN7W	33	10	50*2	5	-40 to +85	-40 to +100	2.9	5	10	5	(x, y) (0.30, 0.30)	5	22	56	140	5	—
	White	New CSL0416WBCW	117	30	100*2	5	-40 to +85	-40 to +100	3.2	20	50	5	(x, y) (0.30, 0.28)	20	1,400	2,200	3,600	20	—

(Reverse Mount Available type)																			
Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)					Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/AEC-Q102	
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F		Reverse Current I _R		Dominant Wavelength λ _d / Chromaticity Coordinates (x, y)		Luminous Intensity I _v				
							Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ* (nm)	I _F (mA)	Min (mcd)	Typ (mcd)	Max (mcd)	I _F (mA)			
	Red	SML-811VT (A)	62	25	100*2	5	-40 to +85	-40 to +100	2.0	10	100	5	630	10	11	22	45	10	YES
		SML-811UT (A)	62	25	100*2	5	-40 to +85	-40 to +100	2.0	10	100	5	620	10	11	22	45	10	YES
	Orange	SML-811DT (A)	62	25	100*2	5	-40 to +85	-40 to +100	2.0	10	100	5	605	10	11	22	45	10	YES
	Yellow	SML-811WT (A)	62	25	100*2	5	-40 to +85	-40 to +100	2.0	10	100	5	590	10	14	28	56	10	YES
	Yellow Green	SML-812MT	65	25	60*1	4	-30 to +85	-40 to +85	2.1	20	100	4	571	20	14	40	110	20	—
Blue	New SML813BNT	76	20	100*2	5	-40 to +85	-40 to +85	3.2	20	100	5	470	20	90	185	360	20	—	
White	New SML811WBCN1W	35	10	50*2	5	-40 to +85	-40 to +100	2.8	2	10	5	(x, y) (0.272, 0.279)	2	9	22	45	2	YES	
	Yellow Green	SML-822MV8W	54	20	100*2	5	-40 to +85	-40 to +100	2.2	20	100	5	572	20	16	25	40	20	—
	Red	SML-822MV8W	54	20	100*2	5	-40 to +85	-40 to +100	2.2	20	100	5	630	20	16	30	63	20	—
	Yellow Green	SML-825MVW	80	30	100*2	5	-40 to +85	-40 to +100	2.1	20	100	5	572	20	40	63	100	20	—
Red	SML-825MVW	80	30	100*2	5	-40 to +85	-40 to +100	2.0	20	100	5	630	20	40	63	100	20	—	

*1 Duty:1/5, 200Hz *2 Duty:1/10, 1kHz *3 Duty:1/20, 1ms *4 Duty:1/5, 1kHz *5 Duty:1/10, pulse width 10ms Max (): Reference

(Surface Mount Circular type)																				
Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)						Electrical and Optical Characteristics (T _a =25°C)								Automotive Grade AEC-Q101/AEC-Q102			
			Power Dissipation P _o (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F		Reverse Current I _R		Dominant Wavelength λ _D		Luminous Intensity I _v					
									Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ (nm)	I _F (mA)	Min (mcd)	Typ (mcd)		Max (mcd)	I _F (mA)	
	Red	CSL0901VT	62.5	25	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	630		20	112	180	355	20	YES
		CSL0901UT											140	280		450	YES			
	Orange	CSL0901DT	62.5	25	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	605		20	224	400	710	20	YES
	Yellow	CSL0901YT	62.5	25	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	590		20	180	320	560	20	YES
		CSL0901WT											280	YES						
	Yellow Green	CSL0901MT	62.5	25	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	571		20	56	100	180	20	YES
	Green	CSL0901PT	62.5	25	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	560		20	14	30	45	20	YES
		CSL0901ET											70	20			5			527
	Blue	CSL0901BT	68	20	100 ^{*2}	5	-40 to +100	-40 to +100	2.9	5	10	5	470		5	36	56	90	5	YES
	Red	CSL0902VT	87	35	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	630		20	140	250	450	20	YES
		CSL0902UT											180	350		560	YES			
	Orange	CSL0902DT	87	35	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	605		20	355	560	1,120	20	YES
	Yellow	CSL0902YT	87	35	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	590		20	280	500	900	20	YES
	Yellow Green	CSL0902MT	87	35	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	571		20	90	150	280	20	YES
	Green	CSL0902ET	95	25	100 ^{*2}	5	-40 to +100	-40 to +100	3.4	20	10	5	527		20	710	1,100	1,800	20	YES
	Blue	CSL0902BT	95	25	100 ^{*2}	5	-40 to +100	-40 to +100	3.3	20	10	5	470		20	220	360	560	20	YES
Red	CSL0903VT	87	35	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	(630)		20	(355)	(700)	(900)	20	YES	
	CSL0903UT											(620)	(560)		(1,000)	(1,400)	YES			
Orange	CSL0903DT	87	35	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	(605)		20	(710)	(1,200)	(1,800)	20	YES	
Yellow	CSL0903YT	87	35	100 ^{*2}	12	-40 to +100	-40 to +100	2.1	20	10	12	(590)		20	(560)	(800)	(1,400)	20	YES	
Reverse Mount Available 3.2x1.6 (t=1.85)	Red	SML-S13VT	75	30	100 ^{*2}	5	-40 to +85	-40 to +100	1.9	20	10	5	630		20	160	450	630	20	—
		SML-S13UT											400	700		1,600	—			
	Orange	SML-S13DT	75	30	100 ^{*2}	5	-40 to +85	-40 to +100	1.9	20	10	5	605		20	630	1,400	2,500	20	—
	Yellow	SML-S13YT	78	30	100 ^{*2}	5	-40 to +85	-40 to +100	2.0	20	10	5	590		20	630	1,400	2,500	20	—
	Yellow Green	SML-S13MT	78	30	100 ^{*2}	5	-40 to +85	-40 to +100	2.0	20	10	5	572		20	160	400	630	20	—
	Green	SML-S13PT	78	30	100 ^{*2}	5	-40 to +85	-40 to +100	2.0	20	10	5	560		20	63	160	400	20	—
Blue	SML-S14ENT	117	30	100 ^{*2}	5	-40 to +85	-40 to +100	3.3	20	10	5	527		20	1,800	3,000	4,500	20	—	
	SML-S14BNT	117	30	100 ^{*2}	5	-40 to +85	-40 to +100	3.2	20	10	5	470		20	450	800	1,400	20	—	
2.9x2.4 (t=3.1)	Red	CSL0701UT	120	50	150 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	624		20	9,000	18,000	25,000	20	—
	Orange	CSL0701DT	120	50	150 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	605		20	20,000	35,000	50,000	20	—

(2 Colors type)																				
Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)						Electrical and Optical Characteristics (T _a =25°C)								Automotive Grade AEC-Q101/AEC-Q102			
			Power Dissipation P _o (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F		Reverse Current I _R		Dominant Wavelength λ _D		Luminous Intensity I _v					
									Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ (nm)	I _F (mA)	Min (mcd)	Typ (mcd)		Max (mcd)	I _F (mA)	
PICOLED™-Duo 1.0x1.0 (t=0.2)	Yellow Green	SML-P24MUW (R)	54	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.2	20	10	5	572		20	10	21	40	20	—
	Red		52	20	100 ^{*2}	5	-40 to +85	-40 to +100	2.1	20	10	5	620		20	25	52	100	20	—
1.6x0.8 (t=0.55)	Yellow Green	SML-D22MUW	67	25	100 ^{*2}	5	-40 to +105	-40 to +110	2.0	5	10	5	570		5	6	10	16	5	—
	Red	SML-D22YVW	65	25	100 ^{*2}	5	-40 to +105	-40 to +110	1.9	5	10	5	620		5	10	16	25	5	—
	Yellow	SML-D22YVW	67	25	100 ^{*2}	5	-40 to +105	-40 to +110	2.0	5	10	5	588		5	16	25	40	5	—
	Red	SML-D22YVW	65	25	100 ^{*2}	5	-40 to +105	-40 to +110	1.9	5	10	5	629		5	10	16	25	5	—
1.3x1.5 (t=0.6)	Blue	SML522BUNW	66	20	60 ^{*2}	5	-40 to +85	-40 to +100	2.9	5	10	5	470		5	9	22	36	5	—
	Red	SML522BUNW	50	20	60 ^{*2}	5	-40 to +85	-40 to +100	1.9	5	10	5	624		5	10	21	40	5	—
	Yellow Green	SML-522MUW	52	20	60 ^{*2}	4	-30 to +85	-40 to +85	2.1	20	100	4	570		20	14	40	71	20	—
	Red	SML-522MUW	50	20	60 ^{*2}	4	-30 to +85	-40 to +85	1.9	20	100	4	630		20	22	63	110	20	—
	Yellow Green	SML-522MU8W	54	20	100 ^{*2}	4	-40 to +85	-40 to +100	2.2	20	100	4	572		20	16	40	63	20	—
	Red	SML-522MU8W	54	20	100 ^{*2}	4	-40 to +85	-40 to +100	2.2	20	100	4	620		20	25	63	100	20	—
	Yellow Green	SML-522MD8W	54	20	100 ^{*2}	4	-40 to +85	-40 to +100	2.2	20	100	4	572		20	10	25	40	20	—
	Orange	SML-522MD8W	54	20	100 ^{*2}	4	-40 to +85	-40 to +100	2.2	20	100	4	605		20	40	100	160	20	—
	Yellow Green	SML-522MY8W	54	20	100 ^{*2}	4	-40 to +85	-40 to +100	2.2	20	100	4	572		20	16	40	63	20	—
	Yellow	SML-522MY8W	54	20	100 ^{*2}	4	-40 to +85	-40 to +100	2.2	20	100	4	590		20	40	63	160	20	—
3.0x2.5 (t=1.3)	Yellow Green	SML-020MDT	60	25	60 ^{*1}	4	-30 to +85	-40 to +85	2.2	20	100	4	570 ^{*10}		20	9	20	45	20	—
	Orange	SML-020MDT	60	25	60 ^{*1}	4	-30 to +85	-40 to +85	2	20	100	4	610 ^{*10}		20	6	10	18	20	—
	Yellow Green	SML-020MVT	60	25	60 ^{*1}	4	-30 to +85	-40 to +85	2.2	20	100	4	570 ^{*10}		20	9	20	45	20	—
	Red	SML-020MVT	60	25	60 ^{*1}	4	-30 to +85	-40 to +85	2	20	100	4	650 ^{*10}		20	4	6	11	20	—
	Yellow Green	SML-020MYT	60	25	60 ^{*1}	4	-30 to +85	-40 to +85	2.2	20	100	4	570 ^{*10}		20	9	21	45	20	—
	Yellow	SML-020MYT	60	25	60 ^{*1}	4	-30 to +85	-40 to +85	2.1	20	100	4	585 ^{*10}		20	6	10	18	20	—

(3 Colors type)																				
Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)						Electrical and Optical Characteristics (T _a =25°C)								Automotive Grade AEC-Q101/AEC-Q102			
			Power Dissipation P _o (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F		Reverse Current I _R		Dominant Wavelength λ _D		Luminous Intensity I _v					
									Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ (nm)	I _F (mA)	Min (mcd)	Typ (mcd)		Max (mcd)	I _F (mA)	
4-terminal PICOLED™-RGB 1.0x1.0 (t=0.2)	Red	SMLP34RGBN1W	35	10	50 ^{*3}	5	-40 to +85	-40 to +100	2.1	5	10	5	624		5	36	80	140	5	—
	Green		35	10	50 ^{*3}	5	-40 to +85	-40 to +100	3.1	5	10	5	527		5	140	220	360	5	—
	Blue		35	10	50 ^{*3}	5	-40 to +85	-40 to +100	3	5	10	5	470		5	36	60	140	5	—
6-terminal PICOLED™-RGB 1.5x1.0 (t=0.2)	Red	SMLP36RGBN1W	35	10	50 ^{*3}	5	-40 to +85	-40 to +100	2.1	5	10	5	624		5	36	80	140	5	—
	Green		35	10	50 ^{*3}	5	-40 to +85	-40 to +100	3.1	5	10	5	527		5	140	220	360	5	—
	Blue		35	10	50 ^{*3}	5	-40 to +85	-40 to +100	3.0	5	10	5	470		5	36	60	140	5	—
1.8x1.6 (t=0.5)	Red	MSL0402RGBU ^{*9}	180 ^{*9}	30	100	5	-40 to +85	-40 to +100	2.1	20	10	5	624		20	220	400	560	20	—
	Green		180 ^{*9}	30	100	5	-40 to +85	-40 to +100	3.5	20	100	5	527		20	360	550	900	20	—
	Blue																			

SMD LEDs

〈3 Colors type〉																				
Package (mm)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)							Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/ AEC-Q102
			Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F		Reverse Current I _R		Dominant Wavelength λ _D		Luminous Intensity I _v					
									Typ (V)	I _F (mA)	Max (μA)	V _R (V)	Typ* (nm)	I _F (mA)	Min (mcd)	Typ (mcd)	Max (mcd)	I _F (mA)		
	Red	MSL0104RGBU*9	400 ^{*5} ₇	50	100	5	-40 to +85	-40 to +100	2.1	20	10	5	624	20	450	700	1,100	20	—	
	Green		400 ^{*5} ₇	40	100	—	-40 to +85	-40 to +100	3.3	20	—	—	527	20	710	1,200	1,800	20		
	Blue		400 ^{*5} ₇	40	100	—	-40 to +85	-40 to +100	3.2	20	—	—	470	20	220	400	560	20		
	Red	MSL0104RGBW*8	400 ^{*5} ₇	50	100	5	-40 to +85	-40 to +100	2.1	20	10	5	624	20	450	700	1,100	20		
	Green		400 ^{*5} ₇	40	100	—	-40 to +85	-40 to +100	3.3	20	—	—	527	20	710	1,200	1,800	20		
	Blue		400 ^{*5} ₇	40	100	—	-40 to +85	-40 to +100	3.2	20	—	—	470	20	220	400	560	20		
	Red	MSL0601RGBU	300 ^{*5} ₇	40	100	5	-40 to +85	-40 to +100	2.1	20	10	5	624	20	600	700	830	20	—	
	Green		300 ^{*5} ₇	30	100	5	-40 to +85	-40 to +100	3.3	20	10	5	527	20	1,100	1,250	1,500	20		
	Blue		300 ^{*5} ₇	30	100	5	-40 to +85	-40 to +100	3.2	20	10	5	470	20	290	360	500	20		

*1 Duty:1/5, 200Hz *2 Duty:1/10, 1kHz *3 Duty:1/20, 1ms *4 Duty:1/5, 1kHz *5 Duty:1/10, pulse width 10ms Max
 *6 Total power dissipation in case of lighting three colors. (when lighting three colors, it will be reduced down to 30% of it.)
 *7 50mmx50mm, Substrate: FR4; t=1.6mm Cu foil: t=0.07mm
 *8 Epoxy resin *9 Silicon resin *10 Peak wavelength

〈Surface Mount type Infrared LEDs〉																				
Package (mm)	Part No.	LED Chip	Emitting Color	Absolute Maximum Rating (T _a =25°C)							Electrical and Optical Characteristics (T _a =25°C)									
				Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FP} (mA)	Reverse Voltage V _R (V)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Forward Voltage V _F		Reverse Current I _R		Light Wavelength λ _P		Radiant Intensity				
										Typ (V)	I _F (mA)	Typ (μA)	V _R (V)	Typ (nm)	I _F (mA)	Min (mW/sr)	Typ (mW/sr)	Max (mW/sr)	I _F (mA)	
	SML-M13RT	AlGaAs	Infrared	60	30	100 ^{*1}	5	-40 to +85	-40 to +100	1.4	20	10	5	870	20	0.5	1.7	3.5	20	
	SML-S13RT	AlGaAs	Infrared	60	30	300 ^{*1}	5	-40 to +85	-40 to +100	1.4	20	10	5	850	20	1.5	2.5	3.6	20	
	SML-S15R2T	AlGaAs	Infrared	100	50	300 ^{*1}	5	-40 to +85	-40 to +100	1.4	20	10	5	870	20	5.6	12	22	20	
	SCM-013RT	AlGaAs	Infrared	57	30	300 ^{*1}	5	-40 to +85	-40 to +100	1.4	20	10	5	850	20	0.5	2.0	5.0	20	
	New CSL1501RW	AlGaAs	Infrared	100	50	200 ^{*1}	5	-40 to +85	-40 to +100	(1.4) (1.5)	20 30	10	5	(860) 30		(1.2) 1.9	(1.6) (2.5)	(2.2) 3.4	20 30	

〈Surface Mount photo transistor〉																			
Package (mm)	Part No.	LED Chip	Absolute Maximum Ratings (T _a =25°C)							Electrical and Optical Characteristics (T _a =25°C)									
			Collector-Emitter Voltage (V)	Emitter-Collector Voltage (V)	Collector Current (mA)	Collector Power Dissipation (mW)	Operating Temperature Topr (°C)	Storage Temperature Tstg (°C)	Light Current			Dark Current		Sensitivity Wavelength λ _P Typ (nm)	Collector-Emitter Saturation Voltage				
									Min (mA)	Max (mA)	V _{CE} (V) / ε (Lx)	Max (μA)	V _{CE} (V)		Min (V)	Typ (V)	Max (V)	I _C (mA) / ε (Lx)	
	SML-H10TB	Si	32	5	30	80	-30 to +85	-30 to +100	2.0	4.0	5/500	0.5	10	800	—	—	0.4	0.1/500	
	SCM-014TB	Si	32	5	30	100	-30 to +85	-30 to +100	0.3	3.8	5/500	0.5	10	800	—	—	0.4	0.1/500	
	SML-810TB	Si	32	5	30	80	-30 to +85	-30 to +100	2.3	3.8	5/500	0.5	10	800	—	—	0.4	0.1/500	

*1 Duty:1/10, 1kHz

(): Reference

SMD LEDs

● Product No. Configuration (Chip LEDs)

[SML series/SCM series]

■ Exclude Mono-color (Blue (B), Green (E), White (WB) and RGB)

Series name: **S M L - D 1 2 V** Chip control symbol: **8** Remarks: **W T 8 6** Special control symbol:

Package shape: **D** Type of Element: **1 2** Color: **V** Resin color: **W T** Packaging type: **8 6** Brightness rank:

SML chip LED series	Package shape	Type of Element	Color	Resin color	Packaging type
P1 1.0x0.6 t=0.2mm	0	Low current type	L Red	T Transparent colorless	T86 Cathode at sprocket hole side (the top)
E1 1.6x0.8 t=0.36mm	1	High brightness type	V Red	W Milky white	(in case of S1 series)
D1/D2 1.6x0.8 t=0.55mm	2		U Red	B Black	
H1 2.0x1.25 t=0.8mm	3	Ultra high brightness type	U2 Red	T86 Cathode at sprocket hole side (the back)	
M1 2.0x1.25 t=0.8mm	4		D Orange		T68 Cathode at sprocket hole side (the top)
D1/02 3.0x2.0 t=1.3mm	5		Y3 Yellow		
Z1/Y1 3.5x2.8 t=1.9mm	6		Y Yellow		
A1 1.6x1.15 t=0.55mm	8		W Yellow		
B1/B2 3.4x1.25 t=1.1mm			Y2 Yellow		
S1 3.2x1.6 t=1.85mm			M2 Yellow green		
P2 1.0x1.0 t=0.2mm					
S2 1.5x1.3 t=0.6mm					

Chip control symbol	Remarks
L	Red
V	Red
U	Red
U2	Red
D	Orange
Y3	Yellow
Y	Yellow
W	Yellow
Y2	Yellow
M2	Yellow green
M	Yellow green
F	Green
P	Green
MV	Yellow green/Red
MU	Yellow green/Red
MD	Yellow green/Orange
MY	Yellow green/Yellow
YV	Yellow/Red
R	Infrared
T	Phototransistor

Resin color	Packaging type
T	Transparent colorless
W	Milky white
B	Black
T86	Cathode at sprocket hole side (the top)
T86	Cathode at sprocket hole side (the back)
T68	Cathode at sprocket hole side (the top)

Refer to specification

[SML series/SCM series]

■ Mono-color (Blue (B), Green (E), White (WB) and RGB)

Chromaticity rank (for PB/SB/E2/E3/white/RGB LED) or Wavelength rank (SMLD12E2/D12E3 only)

Series name: **S M L E N 3 W B C** Chip control symbol: **8** Remarks: **W 1** Special control symbol:

Package shape: **EN** Type of Element: **3** Color: **W B C** Resin color: **W 1** Packaging type: **1** Brightness rank:

SML chip LED series	Package shape	Type of Element	Color	Resin color	Packaging type
P1 1.0x0.6 t=0.2mm	2	High brightness type	E Green	T Transparent Colorless	T86 Cathode at sprocket hole side (the top)
EN 1.6x0.8 t=0.36mm	3	Ultra high brightness type	E2/E3 Blue Green	W Milky white	(in case of white, RGB)
D1 1.6x0.8 t=0.55mm	4		B Blue	T86 Cathode at sprocket hole side (the top)	
MN/M2 2.0x1.25 t=0.8mm	6		PB Green		3 Cathode at sprocket hole side (the top 2mm pitch)
Z2/ZN 3.5x2.8 t=1.9mm	8		SB Sapphire blue	(in case of S1 and B1 series)	
A1 1.6x1.15 t=0.55mm			WB White	T86 Cathode at sprocket hole side (the back)	
B1 3.4x1.25 t=1.1mm			BU Blue/Red	T68 Cathode at sprocket hole side (the top)	
S1 3.2x1.6 t=1.85mm			RGB Red/Green/Blue		
S2 1.5x1.3 t=0.6mm					
P34 1.0x1.0 t=0.2mm					
P36 1.5x1.0 t=0.2mm					
VN 3.5x2.8 t=0.6mm					
01 3.0x2.0 t=1.3mm					
K1/K2 4.5x2.0 t=0.6mm					

Chip control symbol	Remarks
E	Green
E2/E3	Blue Green
B	Blue
PB	Green
SB	Sapphire blue
WB	White
BU	Blue/Red
RGB	Red/Green/Blue

Resin color	Packaging type
T	Transparent Colorless
W	Milky white
U	Silicone
W	Epoxy
T86	Cathode at sprocket hole side (the top)
1	Cathode at sprocket hole side (the top)
3	Cathode at sprocket hole side (the top 2mm pitch)
T86	Cathode at sprocket hole side (the back)
T68	Cathode at sprocket hole side (the top)

*B1 series is nothing "T68".

Refer to specification

[CSL series]

Series name: **C S L 0 7** Chip control symbol: **0 1 D** Remarks: **T 5** Chromaticity rank (for white LED): Special control symbol:

Package shape: **07** Color: **D** Resin color: **T 5** Packaging type: **5** Brightness rank:

CSL chip LED series	Package shape	Color	Resin color	Packaging type
04 2.8x1.15 t=0.8mm	0	V Red	T Transparent Colorless	1 Cathode at sprocket hole side (the top)
07 2.9x2.4 t=3.1mm	1	U Red	W Milky white	5 Cathode at sprocket hole side (big reel)
09 1.6x0.8 t=1.24mm		D Orange		
10 1.6x0.8 t=1.24mm		Y Yellow		
11 1.6x0.8 t=0.55mm		W Yellow		

Chip control symbol	Remarks
V	Red
U	Red
D	Orange
Y	Yellow
W	Yellow
M	Yellow green
P	Green
E	Green
B	Blue
WB	White
SB	Sapphire blue

Resin color	Packaging type
T	Transparent Colorless
W	Milky white
1	Cathode at sprocket hole side (the top)
5	Cathode at sprocket hole side (big reel)

Refer to specification

[MSL series]

Series name: **M S L 0 1** Chip control symbol: **0 4 R G B** Remarks: **U 1** Chromaticity rank (for RGB LED): Special control symbol:

Package shape: **01** Color: **R G B** Resin color: **U 1** Packaging type: **1** Brightness rank:

MSL Multi color series	Package shape	Color	Resin color	Packaging type
01 6.9x2.2 t=2.15mm	0	RGB Red/Green/Blue	U Silicone	1 Cathode at sprocket hole side (the top)
04 1.8x1.6 t=0.5mm			W Epoxy	
05 3.5x2.8 t=0.6mm				
06 2.9x1.35 t=1.0mm				

Chip control symbol	Remarks
R	Red
G	Green
B	Blue

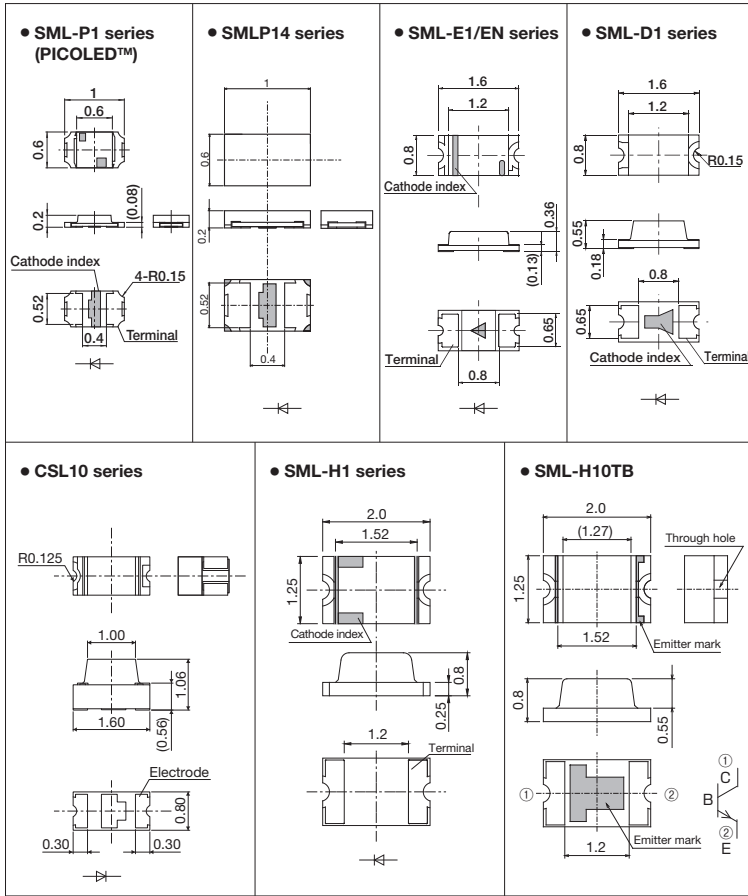
Resin color	Packaging type
U	Silicone
W	Epoxy
1	Cathode at sprocket hole side (the top)

*MSL0601RGBU is not applied.

Refer to specification

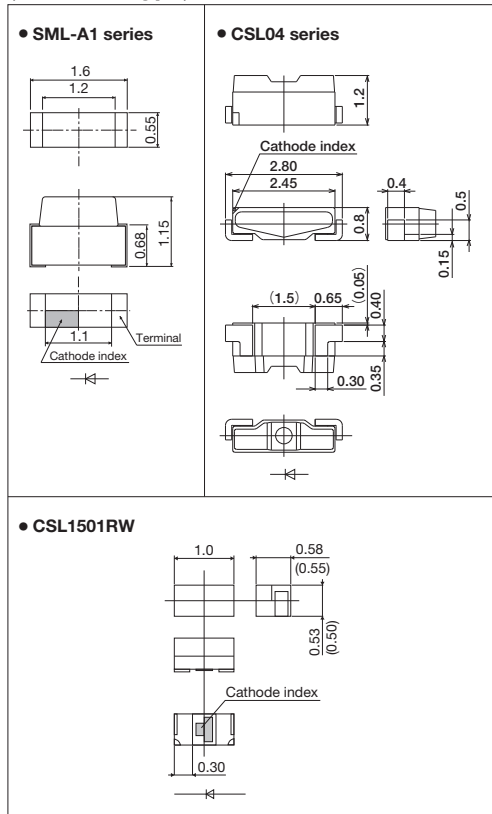
SMD LEDs

● **Dimensions** (Unit: mm)
 ◀ **(Mold type)**

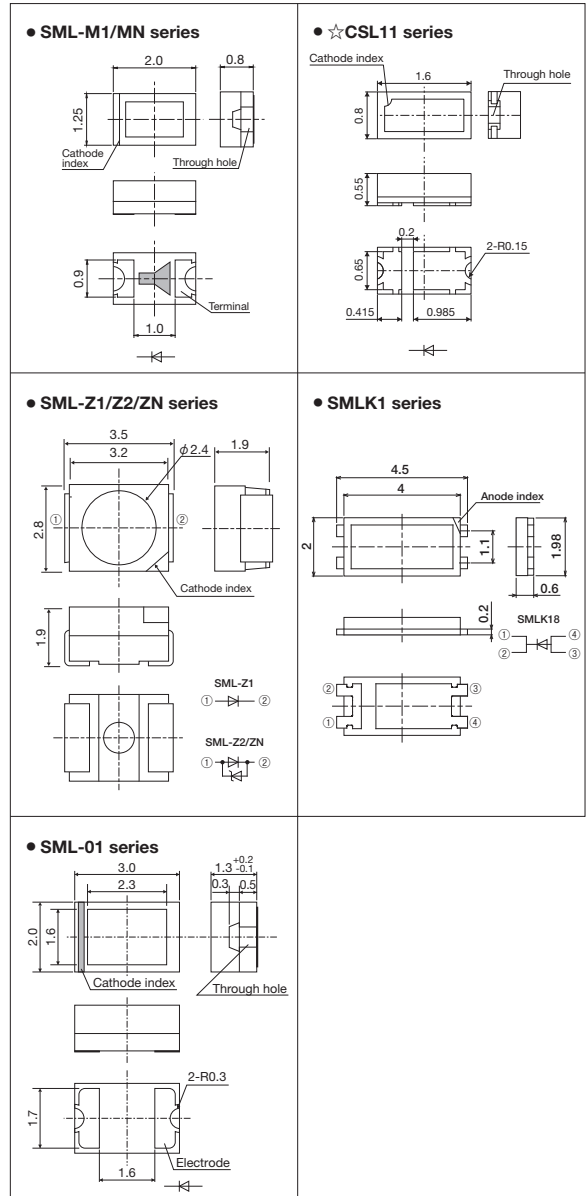


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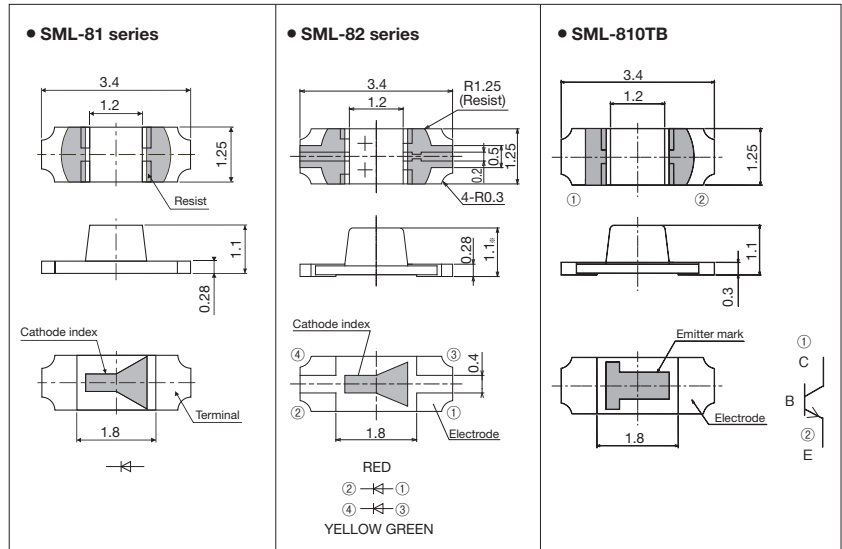
◀ **(Side View type)**



◀ **(Reflector type)**



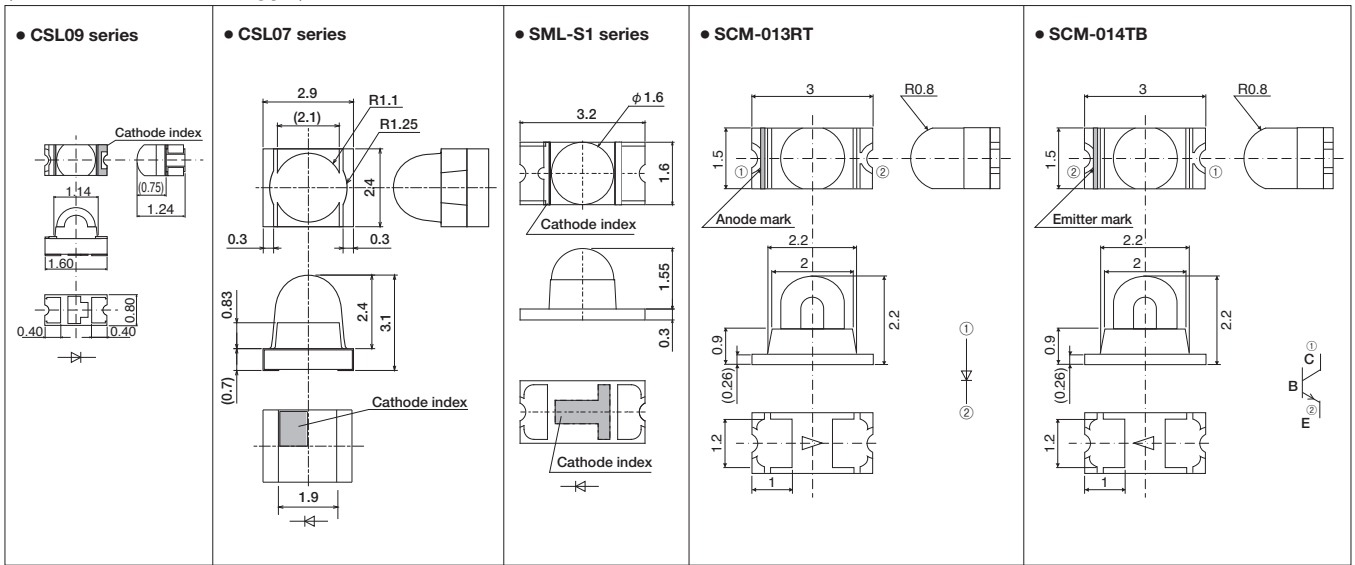
◀ **(Reverse Mount type)**



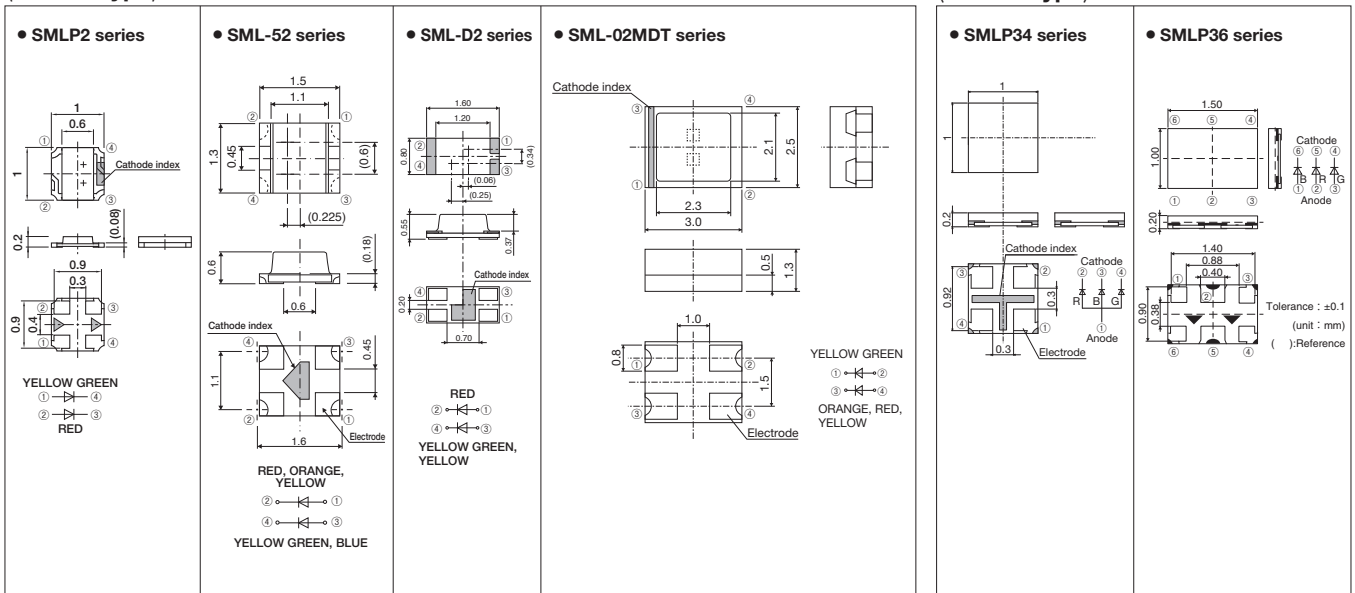
*For further information, please refer to the data sheets.

☆: Under Development

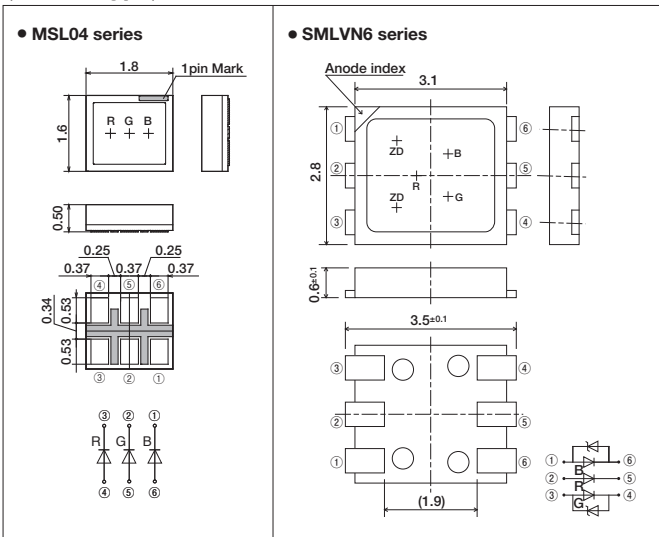
Surface Mount Lens type



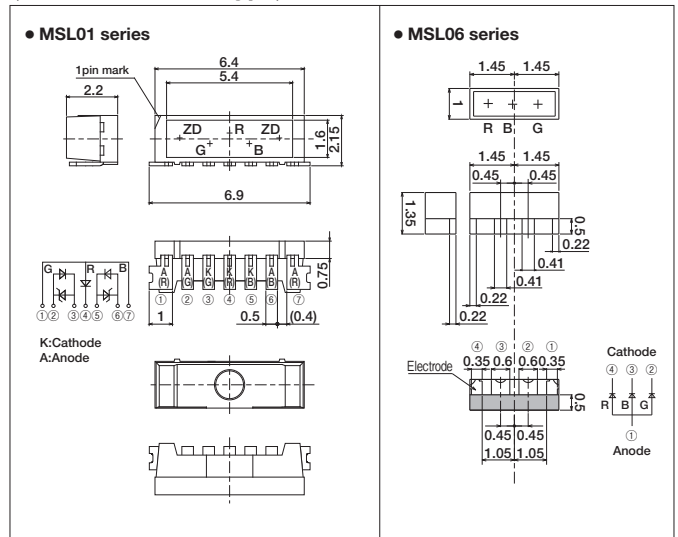
2 Color type



3 Color type

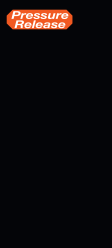
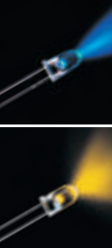


3 Color Side View type



*For further information, please refer to the data sheets.

Through-hole LEDs

⌀3 type																																			
Shape	Package Image	Viewing Angle 2θ1/2 (Element type)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)					Electrical and Optical Characteristics (T _a =25°C)										Automotive Grade AEC-Q101/ AEC-Q102															
					Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FM} (mA)	Reverse Voltage V _R (V)	Operating Temperature T _{opr} (°C)	Storage Temperature T _{stg} (°C)	Forward Voltage V _F (V)	Typ (V)	I _r (mA)	Max (μA)	V _r (V)	Dominant Wavelength λ _d ¹⁾ / Chromaticity Coordinates (x, y)	Typ* (nm)	I _r (mA)	Min (mcd)		Typ (mcd)	Max (mcd)	I _r (mA)												
⌀3 Circular type		40°	Standard	Red	SLI-343V8RC	54	20	100*2	9	-30 to +85	-40 to +100	2.2	20	10	9	639	20	150	330	(680)	20	—													
				SLI-343V8R	100													220	(470)																
				SLI-343U8RC	150													330	(680)																
			SLI-343U8R	100	220	(470)																													
			Orange	SLI-343D8C	54	20	100*2	9	-30 to +85	-40 to +100	2.2	20	10	9	611	20	330	680	(1,500)	20	—														
				SLI-343D8U													220	470	(1,000)																
				SLI-343Y8C													330	680	(1,500)																
			SLI-343Y8Y	220	470	(1,000)																													
			Yellow	SLI-343M8C	54	20	100*2	9	-30 to +85	-40 to +100	2.2	20	10	9	572	20	68	150	(330)	20	—														
		SLI-343M8G		—													—	—																	
		SLI-343P8C		—													—	—																	
		SLI-343P8G	—	—	—																														
		40°	High Brightness	Red	SLI-343URC	125	50	200*2	9	-25 to +85	-30 to +100	1.9	20	100	9	630	20	90	450	(710)	20	—													
					SLI-343UR													100	220	(470)															
					SLI-343DC													500	—	—															
	SLI-343DU			350	—	—																													
	Orange			SLI-343YC	125	50	200*2	9	-25 to +85	-30 to +100	1.9	20	100	9	591	20	90	350	(710)	20	—														
				SLI-343YY													300	—	—																
				SLI-343MC													200	—	—																
	SLI-343MG			180	—	—																													
	Yellow Green			SLI-343URC	62	25	100*2	9	-25 to +80	-30 to +100	2.1	20	100	9	572	20	56	200	—	20	—														
		SLI-343UR	—	—													—																		
		SLI-343DC	—	—													—																		
	SLI-343DU	—	—	—																															
	Blue	SLR343BN2T	126	30	100*2	5	-20 to +80	-30 to +100	3.2	20	10	5	470	20	470	1,000	(2,200)	20	—																
		SLR343BN2PT													—	—	—																		
		SLR343BN2PT													—	—	—																		
	40°	Standard	Red	SLR-343VC	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	650	10	9	25	(71)	10	—														
				SLR-343VR													6	16	(45)																
				SLR-343DC													9	25	(71)																
SLR-343DU			6	16	(45)																														
Orange			SLR-343YC	60	20	60*1	3	-25 to +85	-30 to +100	2.1	10	10	3	585	10	6	16	(45)	10	—															
			SLR-343YY													4	10	(28)																	
			SLR-343MC													9	25	(71)																	
SLR-343MG			6	16	(45)																														
Yellow Green			SLR-343PC	75	25	60*1	3	-25 to +85	-30 to +100	2.1	10	10	3	563	10	2	6	(18)	10	—															
			SLR-343PG													—	—	—																	
			SLR343EN4T													900	2,200	—																	
Blue			SLR343BN4T	120	30	100*2	5	-20 to +80	-30 to +100	3.2	20	100	5	468	20	300	680	—	20	—															
			SLI-343URC (W)													125	50	200*2			9	-25 to +85	-30 to +100	1.9	20	100	9	630	20	36	200	(280)	20	—	
			SLI-343UR (W)																											160	—	—			
SLI-343DC (W)			300	—	—																														
SLI-343DU (W)	250	—	—																																
Yellow	SLI-343YC (W)	125	50	200*2	9	-25 to +85	-30 to +100	1.9	20	100	9	591	20	36	200	(280)	20	—																	
	SLI-343YY (W)													160	—	—																			
	SLR-332VC													60	20	60*1			3	-25 to +85	-30 to +100	2.0	10	10	3	650	10	4	10	(28)	10	—			
SLR-332VR	—	—	—																																
SLR-332DC	6	16	(45)																																
SLR-332DU	4	10	(28)																																
Orange	SLR-332YC	60	20	60*1	3	-25 to +85	-30 to +100	2.1	10	10	3	585	10	4	10	(28)	10	—																	
	SLR-332YY													2	6	(18)																			
	SLR-332MC													—	—	—																			
SLR-332MG	—	—	—																																
⌀5 type		10°	High Brightness	Red	SLI-580UT	125	50	200*2	9	-30 to +85	-40 to +100	1.9	20	100	9	630	20	2,000	5,000	(11,000)	20	—													
				Orange	SLI-580DT													1,350	5,000	(7,500)															
				Yellow	SLI-580YT													1,350	5,000	(7,500)															
				Yellow Green	SLA-580MT													20	470	(1,100)															
				Green	SLA580EN4T													6,100	15,000	—															
				Blue	SLA580BNT													1,350	3,300	—															
		20°	High Brightness	Red	SLI-570UT	125	50	200*2	9	-30 to +85	-40 to +100	1.9	20	100	9	630	20	900	3,000	(5,200)	20	—													
				SLI-570U2T	2,200													4,000	(10,000)																
				Orange	SLI-570DT													900	3,000	(5,200)															
				Yellow	SLI-570YT													610	2,500	(3,600)															
				SLI-570Y2T	2,200													5,200	(10,000)																
				Yellow Green	SLA-570MT													200	470	(1,100)															
		40°	High Brightness	Red	SLI-560UT	125	50	200*2	9	-30 to +85	-40 to +100	1.9	20	100	9	630	20	300	1,000	(1,650)	20	—													
				Orange	SLI-560DT													200	—	—															
				Yellow	SLI-560YT													300	1,000	(1,650)															
	SLI-560Y2T			300	1,000													(1,650)																	
	Yellow Green			SLA-560MT	42													100	(240)																
	Blue			SLA560BN2T	1,000													2,200	(4,700)																
	White			SLA560BN2PT	1,500													3,300	(6,800)																
	Green			SLA560EN4T	900													2,200	—																
	Blue			SLA560BN4T	300													680	—																
	40°	Standard	Red	SLR-56VC	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	650	10	9	25	(71)	10	—														
			SLR-56VR	4													10	(28)																	
			Orange	SLR-56DC													9	25	(71)																
			SLR-56DU	4													10	(28)																	
			Yellow	SLR-56YC													60	20	60*1			3	-25 to +85	-30 to +100	2.1	10	10	3	585	10	9	25	(71)	10	—
				SLR-56YY																											6	16	(45)		
				SLR-56MC																											14	40	(110)		
			SLR-56MG	6													16	(45)																	

*1 Duty:1/5, 200Hz *2 Duty:1/10, 1kHz *3 Dominant Wavelength
*Brightness for white color is noted with chromaticity coordinate (x, y).

◀Oval type▶																						
Shape	Package Image	Viewing Angle 201/2 (Element type)	Emitting Color	Part No.	Absolute Maximum Ratings (T _a =25°C)							Electrical and Optical Characteristics (T _a =25°C)										
					Power Dissipation P _D (mW)	Forward Current I _F (mA)	Peak Forward Current I _{FM} (mA)	Reverse Voltage V _R (V)	Operating Temperature T _{opr} (°C)	Storage Temperature T _{stg} (°C)	Forward Voltage V _F (V)	I _F (mA)	Reverse Current I _R (μA)	V _R (V)	Dominant Wavelength λ _D / Chromaticity Coordinates (x,y)		Luminous Intensity I _v				Automotive Grade AEC-Q101/ AEC-Q102	
Oval type φ4		140°	Red	SLI-430U2R	75	30	100*2	9	-40 to +85	-40 to +100	2.0	20	10	9	620*3	20	220	400	(680)	20	—	
			Orange	SLI-430DU	75	30	100*2	9	-40 to +85	-40 to +100	2.1	20	10	9	605*3	20	220	470	(680)	20	—	
			Yellow	SLI-430Y2U	75	30	100*2	9	-40 to +85	-40 to +100	2.1	20	10	9	590*3	20	330	500	(900)	20	—	
			Yellow Green	SLI-430MG	75	30	100*2	9	-40 to +85	-40 to +100	2.1	20	10	9	570*3	20	68	120	(220)	20	—	
			Blue	New SLD430BN2W	120	30	100*2	5	-40 to +85	-40 to +100	3.2	20	10	5	470*3	20	330	560	(1,000)	20	—	
◀Other▶																						
φ3.2 Circular type		40°	Red	SLI-325JRC (W)*1	48	20	60*1	4	-25 to +85	-30 to +100	1.9	20	100	4	630	20	36	160	(280)	20	—	
				SLI-325UR (W)*1	48	20	60*1	4	-25 to +85	-30 to +100	1.9	20	100	4	611	20	36	160	(280)	20	—	
			Orange	SLI-325DC (W)*1	48	20	60*1	4	-25 to +85	-30 to +100	1.9	20	100	4	591	20	36	160	(280)	20	—	
				SLI-325DU (W)*1	48	20	60*1	4	-25 to +85	-30 to +100	1.9	20	100	4	591	20	36	160	(280)	20	—	
			Yellow	SLI-325YC (W)*1	48	20	60*1	4	-25 to +85	-30 to +100	1.9	20	100	4	591	20	36	160	(280)	20	—	
		SLI-325YY (W)*1		48	20	60*1	4	-25 to +85	-30 to +100	1.9	20	100	4	591	20	36	160	(280)	20	—		
		40°	Standard	Red	SLR-325VC*1	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	650	10	6	16	(45)	10	—
					SLR-325VR*1	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	650	10	6	16	(45)	10	—
				Orange	SLR-325DC*1	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	610	10	6	16	(45)	10	—
					SLR-325DU*1	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	610	10	6	16	(45)	10	—
Yellow	SLR-325YC*1			60	20	60*1	3	-25 to +85	-30 to +100	2.1	10	10	3	585	10	6	16	(45)	10	—		
Yellow Green	SLR-325MG*1	75	25	60*1	3	-25 to +85	-30 to +100	2.1	10	10	3	563	10	9	25	(71)	10	—				
φ3 Flat Disc type		35°	Red	SLR-322VC	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	650	10	6	16	(45)	10	—	
				SLR-322DC	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	610	10	6	16	(45)	10	—	
			Orange	SLR-322YC	60	20	60*1	3	-25 to +85	-30 to +100	2.1	10	10	3	585	10	4	10	(28)	10	—	
				SLR-322MC	75	25	60*1	3	-25 to +85	-30 to +100	2.1	10	10	3	563	10	9	25	(71)	10	—	
			Yellow Green	SLR-322VC	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	650	10	4	10	(45)	10	—	
		SLR-322DC		60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	610	10	2	6	(18)	10	—		
		50°	Standard	Red	SLR-322VR	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	650	10	4	10	(45)	10	—
					SLR-322DU	60	20	60*1	3	-25 to +85	-30 to +100	2.0	10	10	3	610	10	2	6	(18)	10	—
				Orange	SLR-322YC	60	20	60*1	3	-25 to +85	-30 to +100	2.1	10	10	3	585	10	4	10	(28)	10	—
					SLR-322MC	75	25	60*1	3	-25 to +85	-30 to +100	2.1	10	10	3	563	10	6	16	(45)	10	—
Yellow Green	SLR-322VC			60	20	60*1	3	-25 to +85	-30 to +100	2.1	10	10	3	650	10	6	16	(45)	10	—		

*SLI-325/SLR-325 series: straight taping only.
*1 Duty:1/5, 200Hz *2 Duty:1/10, 1kHz *3 Dominant Wavelength

● Product No. Configuration ◀Through-hole LEDs▶

■ Exclude Mono-color (Blue (B), Green (E), White (WB))

Chip control symbol Remarks Special control symbol

S L I - 3 4 3 V 8 R C 3 F

Series name Package shape Color Resin color Packaging type Brightness rank

SLA 1-Die Circular type High Brightness LED Lamps	343 φ3 Circular type	V Red	R <Red>-Diffused colored	3F 1-Die straight bulk	Refer to specification
SLI 1-Die Circular type Low Current High Brightness LED Lamps	332 φ3 Circular type	U Red	U <Orange>-Diffused colored	T31 Refer to taping specification	
SLR 1-Die Circular type LED Lamp	56 φ5 Circular type	U2 Red	Y <Yellow>-Diffused colored	T32	
	560 φ5 Circular type	D Orange	G <Yellowish green>-Diffused colored		
	570 φ5 Circular type	Y Yellow	C Transparent colored		
	580 φ5 Circular type	M Yellowish green	T Transparent colorless		
	430 Oval type φ4	P Green			
	325 φ3.2 Circular type				
	322 φ3 Flat disc type				

■ Mono-color (Blue (B), Green (E), White (WB))

Chip control symbol Remarks Chromaticity rank (for white LED) *SLA560WBD2PT is not applied. Special control symbol

S L R 3 4 3 W B N 2 P T 2

Series name Package shape Color Resin color Packaging type Brightness rank

SLA 1-Die Circular type High Brightness LED Lamps	343 φ3 Circular type	BN Blue	T Transparent colorless	3F 1-Die straight bulk	Refer to specification
SLR 1-Die Circular type LED Lamps	560 φ5 Circular type	EN Green	W Milky white	T31 Refer to specification	
SLD 1-Die Oval type High Brightness LED Lamps	580 φ5 Circular type	WBN White		T32	
	430 Oval type φ4				

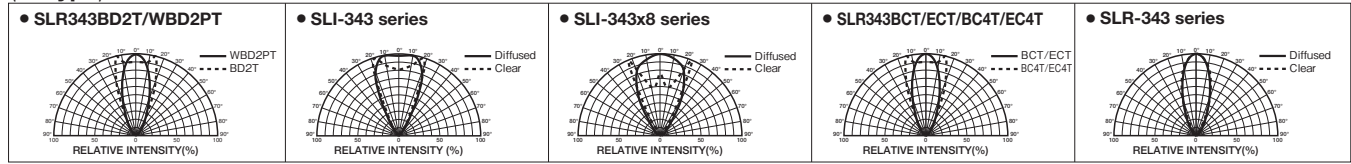
(in case of white)

3 1-Die straight bulk
1 Refer to specification (same as T31)
2 Refer to specification (same as T32)

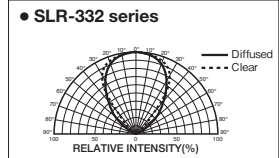
Through-hole LEDs

Viewing Angle (Unit: deg)

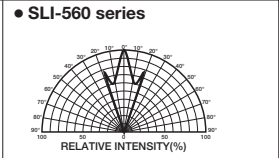
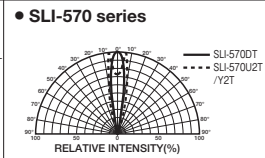
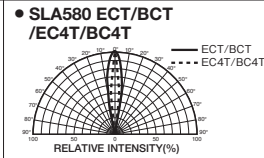
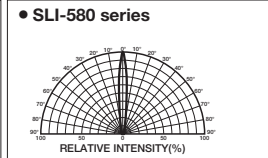
⟨ $\phi 3$ type⟩



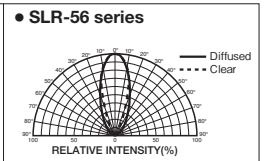
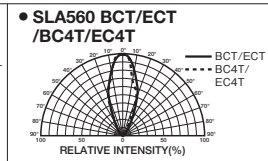
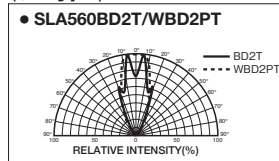
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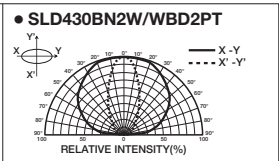
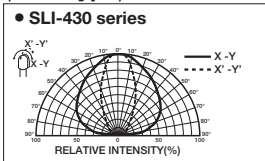
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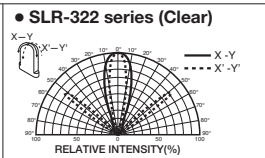
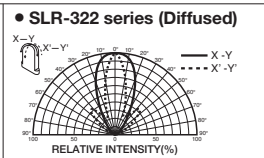
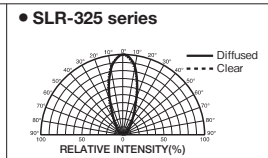
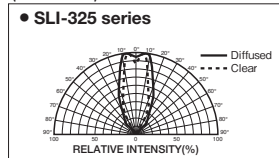
⟨ $\phi 5$ type⟩



⟨Oval type⟩



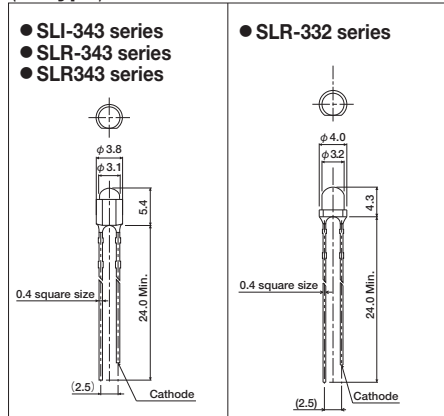
⟨Others⟩



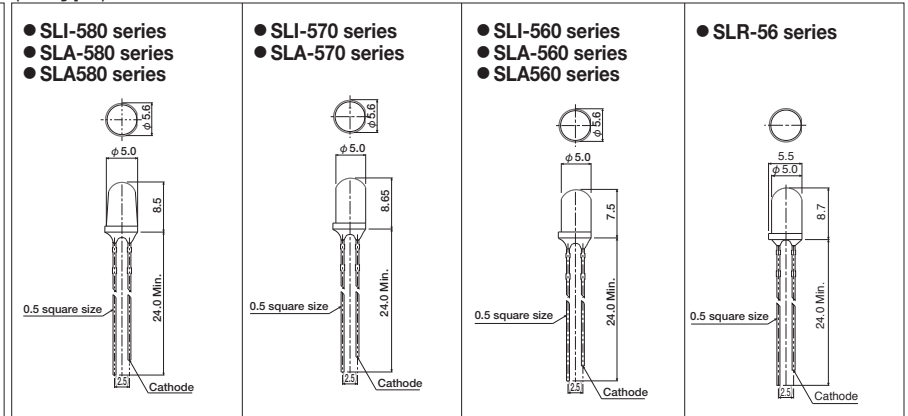
Note: Viewing Angle shown above are the reference data from standard product. For the part numbers other than the above, please contact us.

Dimensions (Unit: mm)

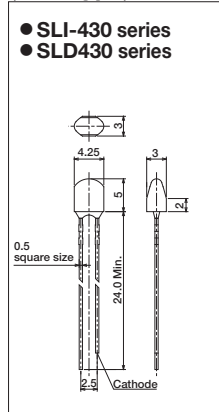
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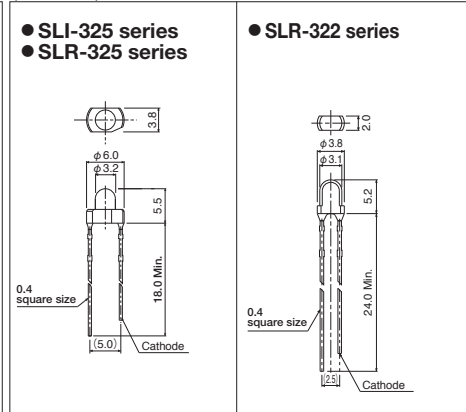
⟨ $\phi 5$ type⟩



⟨Oval type⟩



⟨Others⟩



*For further information, please refer to specification.