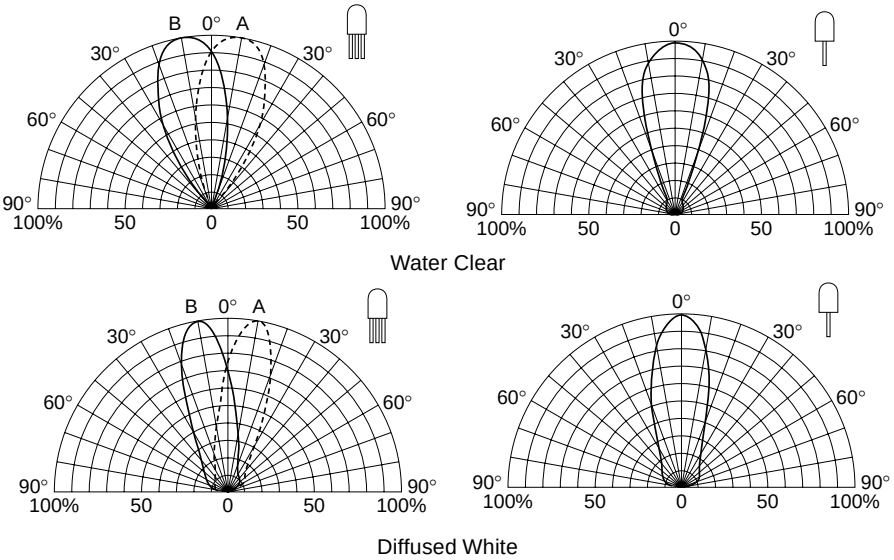
■5ϕ Round Standard Bicolor LEDs

SML1016/10016 Series

	Part Number	Emitting Color		Lens Color	Forward Voltage VF (V) TYP	MAX	Conditions IF (mA)	Luminous Intensity Iv (mcd) TYP	Conditions IF (mA)	Peak Wavelength λP (nm) TYP	Conditions IF (mA)	Dominant Wavelength λd (nm) TYP	Conditions IF (mA)	Spectrum Half Bandwidth Δλ (nm) TYP	Conditions IF (mA)	Chip Material	Remark
	SML11516C	A: Deep red		Water clear	2.0	2.5	10	15	20	700	10	625	10	100	10	GaP	Cathode common
		B: Pure green			2.0	2.5	10	50	20	555	10	559	10	20	10	GaP	
	SML1516W	A: Deep red		Diffused white	2.0	2.5	10	6.0	20	700	10	625	10	100	10	GaP	Cathode common
		B: Pure green			2.0	2.5	10	20	20	555	10	559	10	20	10	GaP	
	SML1216C	A: Red		Water clear	1.9	2.5	10	65	20	630	10	620	10	35	10	GaAsP	Cathode common
		B: Green			2.0	2.5	10	90	20	560	10	567	10	20	10	GaP	
	SML1216W	A: Red		Diffused white	1.9	2.5	10	60	20	630	10	620	10	35	10	GaAsP	Cathode common
		B: Green			2.0	2.5	10	60	20	560	10	567	10	20	10	GaP	
	SML1816W	A: Amber		Diffused white	1.9	2.5	10	50	20	610	10	605	10	35	10	GaAsP	Cathode common
		B: Green			2.0	2.5	10	60	20	560	10	567	10	20	10	GaP	
	SML19416W	A: Orange		Diffused white	1.9	2.5	10	45	20	587	10	590	10	33	10	GaAsP	Cathode common
		B: Green			2.0	2.5	10	60	20	560	10	567	10	20	10	GaP	
	SMLT12E16C-S	Ultrahigh luminosity	A: Red	Water clear	2.0	2.5	20	750	20	632	20	624	20	20	20	AlGaInP	Cathode common
			B: Blue		3.3	4.0	20	800	20	458	20	465	20	25	20	InGaN	
	SMLT12E16W-S		A: Red	Diffused white	2.0	2.5	20	250	20	632	20	624	20	20	20	AlGaInP	Cathode common
			B: Blue		3.3	4.0	20	220	20	458	20	465	20	25	20	InGaN	
*	SMLT12D16W-S		A: Red	Diffused white	2.0	2.5	20	250	20	632	20	624	20	20	20	AlGaInP	Cathode common
			B: Pure green		3.3	4.0	20	750	20	512	20	520	20	35	20	InGaN	
*	SMLT18D16C-S		A: Amber	Water clear	2.0	2.5	20	1125	20	611	20	605	20	17	20	AlGaInP	Cathode common
			B: Pure green		3.3	4.0	20	3000	20	512	20	520	20	35	20	InGaN	
*	SMLT18D16W-S		A: Amber	Diffused white	2.0	2.5	20	375	20	611	20	605	20	17	20	AlGaInP	Cathode common
			B: Pure green		3.3	4.0	20	750	20	512	20	520	20	35	20	InGaN	
*	SMLT18E16C-S		A: Amber	Water clear	2.0	2.5	20	1125	20	611	20	605	20	17	20	AlGaInP	Cathode common
			B: Blue		3.3	4.0	20	800	20	458	20	465	20	25	20	InGaN	
	SMLU12416W-S		A: Red	Diffused white	1.9	2.5	20	250	20	632	20	625	20	20	20	AlGaInP	Cathode common
			B: Green		2.1	2.5	20	50	20	560	20	567	20	30	20	GaP	
*	SMLT1DE16W-S		A: Green	Diffused white	3.3	4.0	20	580	20	515	20	520	20	35	20	InGaN	Cathode common
			B: Blue		3.3	4.0	20	220	20	460	20	465	20	25	20	InGaN	

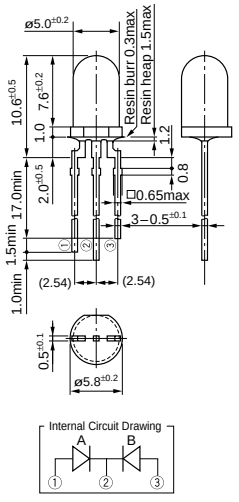
*Mass production in preparation

Directional Characteristics (representative example)



External Dimensions (Unit: mm)

Dimensional Tolerance: ±0.3



Product Mass: Approx. 0.35 g

Absolute Maximum Ratings

●Visible Light Unicolor Lamp

Parameter	Unit	Ratings						Conditions
		GaP	GaAsP	GaAlAs	AlGaInP	InGaN	GaN	
P_D	mW	75				120		
I_F	mA	30						
ΔIF	mA/°C	−0.45						25°C or higher
IFP	mA	100					70	f=1kHz, tw≤100μs
VR	V	3			5			
Top	°C	−30 to +85					−30 to +80	
Tstg	°C	−30 to +100						

●Visible Light Bicolor Lamp

Parameter	Unit	Ratings					Conditions
		GaP	GaAsP	GaAlAs	AlGaInP	InGaN	
P_D	mW	75				120	Same conditions for simultaneous lighting
I_F	mA	30					
ΔIF	mA/°C	−0.45					25°C or higher
IFP	mA	100					f=1kHz, tw≤100μs
VR	V	4			5		
Top	°C	−30 to +85					
Tstg	°C	−30 to +100					

●Visible Light Unicolor Surface Mount LEDs

Parameter	Unit	Ratings						Conditions
		GaP	GaAsP	GaAlAs	AlGaInP	InGaN	GaN	
I_F	mA	30				20		
ΔIF	mA/°C	−0.45				−0.27		25°C or higher
IFP	mA	100*1				70*2		f=1kHz, tw≤100μs
VR	V	3			5			
Top	°C	−30 to +85				−30 to +80		
Tstg	°C	−30 to +100						

*1: 70mA for SEC1005/1007 Series
*2: 50mA for SEC1005/1007 Series

●Visible Light Bicolor Surface Mount LEDs

Parameter	Unit	Ratings	Conditions
		SEC2002/2004	
P_D	mW	75	
		(Same conditions for simultaneous lighting)	
I_F	mA	30	
ΔIF	mA/°C	−0.45	25°C or higher
IFP	mA	70	f=1kHz, tw≤100μs
VR	V	4	
Top	°C	−30 to +85	
Tstg	°C	−30 to +100	

●Visible Light Three Element Surface Mount LEDs

Parameter	Unit	Ratings		Conditions
		SECT3M02C-S		
		Red	Green/Blue	
P_D	mW	75	120	When one chip lights up (same as green/blue for simultaneous lighting)
I_F	mA	30		
ΔIF	mA/°C	−0.45		25°C or higher
IFP	mA	70	50	f=1kHz, tw≤100μs
VR	V	5		
Top	°C	−30 to +80		
Tstg	°C	−30 to +100		