

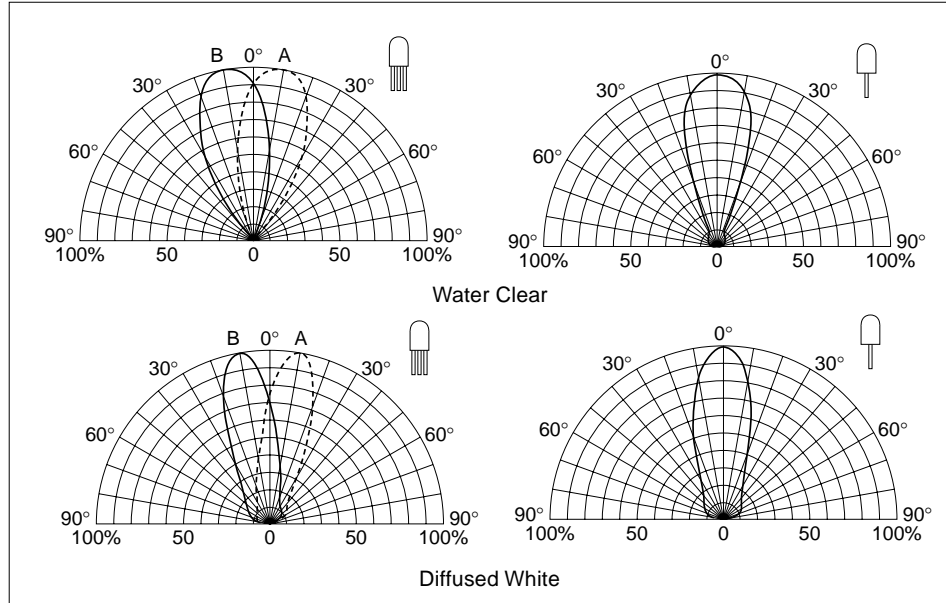
■5φ Round Standard Bicolor LEDs

SML1016/10016 Series

Part Number	Emitting Color	Lens Color	Forward Voltage		Luminous Intensity		Peak Wavelength		Dominant Wavelength		Spectrum Half Bandwidth		Chip Material	Remark	
			V _F (V) TYP	V _F (V) MAX	Conditions IF (mA)	I _v (mcd) TYP	Conditions IF (mA)	λ _P (nm) TYP	Conditions IF (mA)	λ _d (nm) TYP	Conditions IF (mA)	Δλ (nm) TYP			
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	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	

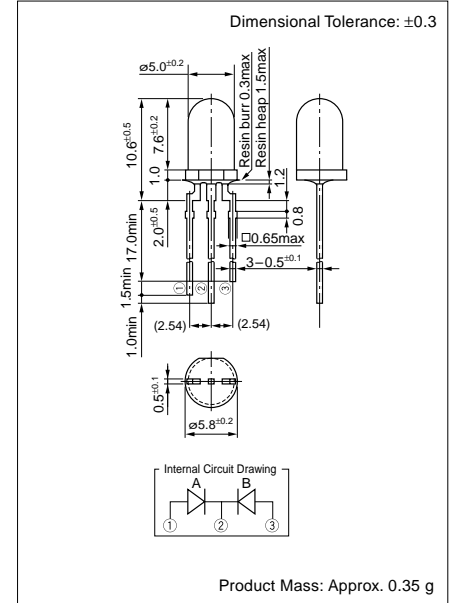
*Mass production in preparation

Directional Characteristics (representative example)



External Dimensions

(Unit: mm)



5-1 Visible Light LEDs

Absolute Maximum Ratings

●Visible Light Unicolor Lamp

Parameter	Unit	Ratings					Conditions
		GaP	GaAsP	GaAlAs	AlGaInP	InGaN	
PD	mW	75			120		
IF	mA	30					
ΔIF	mA/°C	-0.45					25°C or higher
IFP	mA	100			70		f=1kHz, tw≤100μs
VR	V	3		5			
T _{op}	°C	-30 to +85				-30 to +80	
T _{stg}	°C	-30 to +100					

●Visible Light Bicolor Lamp

Parameter	Unit	Ratings					Conditions
		GaP	GaAsP	GaAlAs	AlGaInP	InGaN	
PD	mW	75			120		Same conditions for simultaneous lighting
IF	mA	30					
ΔIF	mA/°C	-0.45					25°C or higher
IFP	mA	100			70		f=1kHz, tw≤100μs
VR	V	4		5			
T _{op}	°C	-30 to +85				-30 to +80	
T _{stg}	°C	-30 to +100					

●Visible Light Unicolor Surface Mount LEDs

Parameter	Unit	Ratings					Conditions
		GaP	GaAsP	GaAlAs	AlGaInP	InGaN	
IF	mA	30			20		
ΔIF	mA/°C	-0.45					25°C or higher
IFP	mA	100 ^{*1}			70 ^{*2}		f=1kHz, tw≤100μs
VR	V	3		5			
T _{op}	°C	-30 to +85				-30 to +80	
T _{stg}	°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		
PD	mW	75 (Same conditions for simultaneous lighting)		
IF	mA	30		
ΔIF	mA/°C	-0.45		25°C or higher
IFP	mA	70		f=1kHz, tw≤100μs
VR	V	4		
T _{op}	°C	-30 to +85		
T _{stg}	°C	-30 to +100		

●Visible Light Three Element Surface Mount LEDs

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