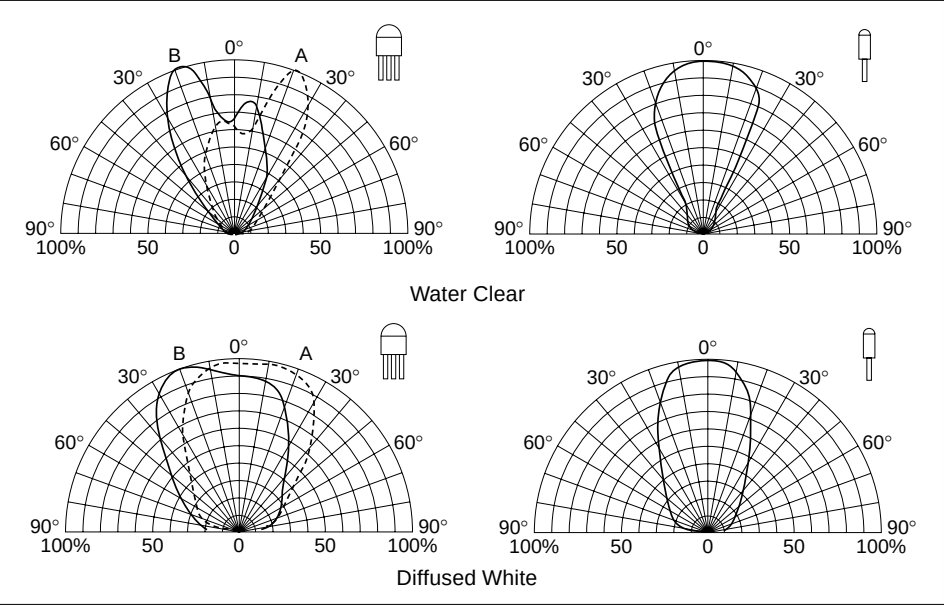


Egg-Shaped Bicolor LEDs

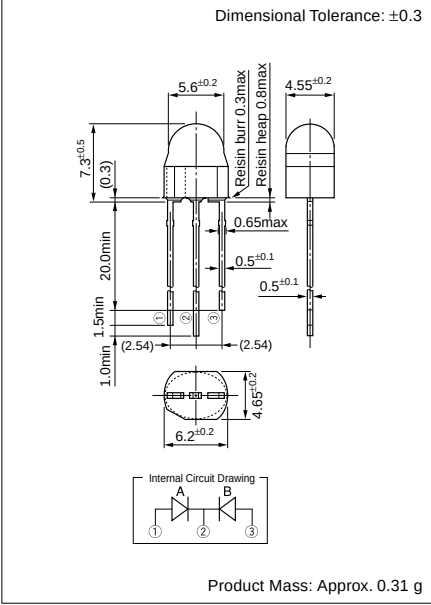
SML70055 Series (available as Direct Mount)

Part Number	Emitting Color	Lens Color	Forward Voltage			Luminous Intensity		Peak Wavelength		Dominant Wavelength		Spectrum Half Bandwidth		Chip Material	Remark
			VF (V) TYP	MAX	Conditions IF (mA)	Iv (mcd) TYP	Conditions IF (mA)	λP (nm) TYP	Conditions IF (mA)	λd (nm) TYP	Conditions IF (mA)	Δλ (nm) TYP	Conditions IF (mA)		
SML72755C	A: Red	Water clear	1.9	2.5	10	45	20	630	10	620	10	35	10	GaAsP	Cathode common
	B: Yellow		2.0	2.5	10	75	20	570	10	571	10	30	10	GaP	
SML79255C	A: Orange	Water clear	1.9	2.5	10	40	20	587	10	590	10	33	10	GaAsP	Cathode common
	B: Red		2.0	2.5	10	45	20	630	10	620	10	35	10	GaAsP	
SML79455C	A: Orange	Water clear	1.9	2.5	10	45	20	587	10	590	10	33	10	GaAsP	Cathode common
	B: Green		2.0	2.5	10	75	20	560	10	567	10	20	10	GaP	
SMLU72755C	A: Red	Water clear	2.0	2.5	10	160	20	635	10	625	20	15	10	AlGaInP	Cathode common
	B: Yellow		2.0	2.5	10	170	20	572	10	571	20	15	10	AlGaInP	
SMLU78755C	A: Amber	Water clear	2.0	2.5	10	280	20	615	10	607	20	15	10	AlGaInP	Cathode common
	B: Yellow		2.0	2.5	10	170	20	572	10	571	20	15	10	AlGaInP	

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	
P _D	mW	75				120	
I _F	mA	30					
ΔI _F	mA/°C	-0.45					25°C or higher
I _{FP}	mA	100				70	f=1kHz, tw≤100μs
V _R	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	
P _D	mW	75				120	Same conditions for simultaneous lighting
I _F	mA	30					
ΔI _F	mA/°C	-0.45					25°C or higher
I _{FP}	mA	100					f=1kHz, tw≤100μs
V _R	V	4			5		
T _{op}	°C	-30 to +85					
T _{stg}	°C	-30 to +100					

●Visible Light Unicolor Surface Mount LEDs

Parameter	Unit	Ratings					Conditions
		GaP	GaAsP	GaAlAs	AlGaInP	InGaN	
I _F	mA	30				20	
ΔI _F	mA/°C	-0.45				-0.27	25°C or higher
I _{FP}	mA	100 ^{*1}				70 ^{*2}	f=1kHz, tw≤100μs
V _R	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	
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	
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		
Top	°C	−30 to +80		
Tsta	°C	−30 to +100		