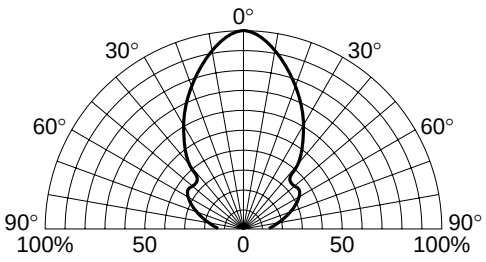
■3.0 × 1.5 Surface Mount LEDs (Inner Lens Type)

SEC1003 Series

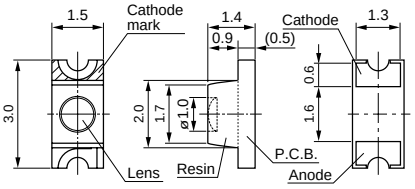
Part Number	Emitting Color		Lens Color	Forward Voltage VF (V) TYP	Forward Voltage VF (V) MAX	Conditions IF (mA)	Luminous Intensity Iv (mcd) TYP	Conditions IF (mA)	Peak Wavelength λP (nm) TYP	Conditions IF (mA)	Dominant Wavelength λd (nm) TYP	Conditions IF (mA)	Spectrum Half Bandwidth Δλ (nm) TYP	Conditions IF (mA)	Chip Material
SEC1603C	High luminosity red		Water clear	1.7	2.2	10	35	20	660	10	642	10	30	10	GaAlAs
SEC1203C	Red		Water clear	1.9	2.5	10	15	20	630	10	620	10	35	10	GaAsP
SEC1803C	Amber		Water clear	1.9	2.5	10	20	20	610	10	605	10	35	10	GaAsP
SEC1903C	Orange		Water clear	1.9	2.5	10	15	20	587	10	590	10	33	10	GaAsP
SEC1703C	Yellow		Water clear	2.0	2.5	10	35	20	570	10	571	10	30	10	GaP
SEC1403C	Green		Water clear	2.0	2.5	10	33	20	560	10	567	10	20	10	GaP
SEC1403E-TG	Deep green		Transparent green	2.0	2.5	10	15	20	558	10	564	10	20	10	GaP
SEC1503C	Pure green		Water clear	2.0	2.5	10	10	20	555	10	559	10	20	10	GaP
SECU1703C	High luminosity	Yellow	Water clear	2.1	2.5	20	70	20	572	20	571	20	15	20	AlGaInP
SECU1403C-S		Green	Water clear	2.1	2.5	20	40	20	562	20	562	20	12	20	AlGaInP
SECU1403C-TG		Green	Water clear	2.1	2.5	20	75	20	564	20	564	20	12	20	AlGaInP
SECS1203C	Ultrahigh luminosity	Red	Water clear	1.9	2.5	20	100	20	635	20	625	20	15	20	AlGaInP
SECS1803C		Amber	Water clear	1.9	2.5	3	10	3	615	3	607	20	15	3	AlGaInP
SECS1903C		Orange	Water clear	1.9	2.5	20	70	20	590	20	590	20	15	20	AlGaInP

Directional Characteristics (representative example)



External Dimensions (Unit: mm)

Dimensional Tolerance: ±0.3



Product Mass: Approx. 0.008 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		