

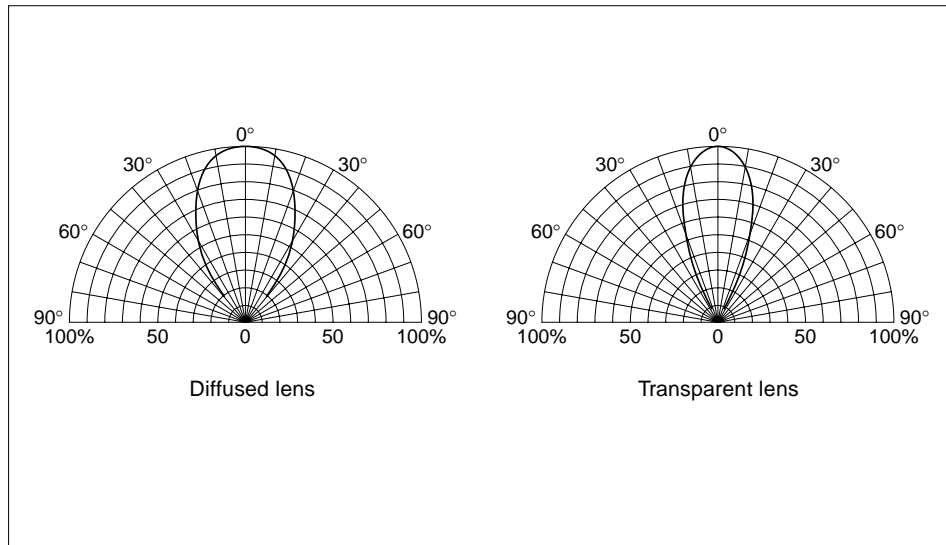
■ 3φ Round Standard LEDs

SEL2010 Series

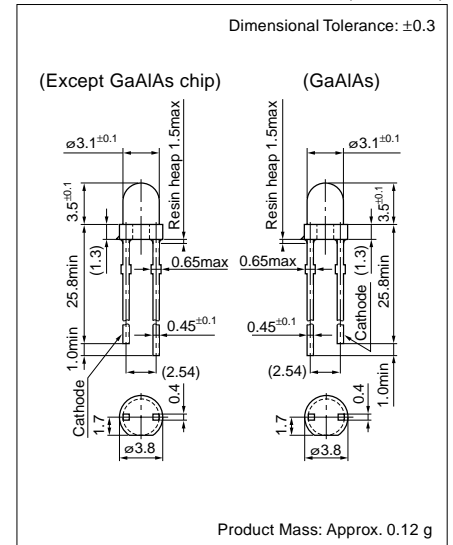
Part Number	Emitting Color	Lens Color	Forward Voltage		Conditions IF (mA)	Luminous Intensity		Peak Wavelength		Dominant Wavelength		Spectrum Half Bandwidth		Chip Material	
			TYP (V)	MAX (V)		Typ (mcd)	Conditions IF (mA)	λP (nm) TYP	Conditions IF (mA)	λd (nm) TYP	Conditions IF (mA)	Δλ (nm) TYP	Conditions IF (mA)		
SEL2110R	Deep red	Diffused red	2.0	2.5	10	1.8	10	700	10	625	10	100	10	GaP	
SEL2110S	Deep red	Transparent red	2.0	2.5	10	4.0	10	700	10	625	10	100	10	GaP	
SEL2110W	Deep red	Diffused white	2.0	2.5	10	1.8	10	700	10	625	10	100	10	GaP	
SEL2610C	High luminosity red	Water clear	1.75	2.2	10	60	20	660	10	642	10	30	10	GaAlAs	
SEL2210R	Red	Diffused red	1.9	2.5	10	15	20	630	10	620	10	35	10	GaAsP	
SEL2210S	Red	Transparent red	1.9	2.5	10	40	20	630	10	620	10	35	10	GaAsP	
SEL2210W	Red	Diffused white	1.9	2.5	10	15	20	630	10	620	10	35	10	GaAsP	
SEL2810A	Amber	Transparent orange	1.9	2.5	10	22	10	610	10	605	10	35	10	GaAsP	
SEL2810D	Amber	Diffused orange	1.9	2.5	10	9.0	10	610	10	605	10	35	10	GaAsP	
SEL2910A	Orange	Transparent orange	1.9	2.5	10	16	10	587	10	590	10	33	10	GaAsP	
SEL2910D	Orange	Diffused orange	1.9	2.5	10	8.0	10	587	10	590	10	33	10	GaAsP	
SEL2710K	Yellow	Transparent yellow	2.0	2.5	10	40	10	570	10	571	10	30	10	GaP	
SEL2710Y	Yellow	Diffused yellow	2.0	2.5	10	14	10	570	10	571	10	30	10	GaP	
SEL2410E	Green	Transparent green	2.0	2.5	10	77	20	560	10	567	10	20	10	GaP	
SEL2410G	Green	Diffused green	2.0	2.5	10	20	20	560	10	567	10	20	10	GaP	
SEL2510C	Pure green	Water clear	2.0	2.5	10	43	20	555	10	559	10	20	10	GaP	
SEL2510G	Pure green	Diffused green	2.0	2.5	10	8.2	20	555	10	559	10	20	10	GaP	
SEL2E10C	Blue	Water clear	4.0	4.8	20	60	20	430	10	466	20	65	10	GaN	
SELK2E10C-D	High luminosity	Blue	3.6	4.0	20	120	20	468	20	470	20	30	20	GaN on Si	
SELK2WA10C-D		White	Water clear	3.6	4.0	20	300	20	Chromaticity: x=0.300, y=0.295				GaN on Si		
SELU2610C-S		Deep red	Water clear	2.0	2.5	20	300	20	650	20	639	20	20	20	AlGaInP
SELU2210C-S		Red	Water clear	2.0	2.5	20	350	20	632	20	624	20	20	20	AlGaInP
SELU2810C-S		Amber	Water clear	2.0	2.5	20	400	20	611	20	605	20	17	20	AlGaInP
SELU2B10A-S		Light Amber	Transparent orange	2.0	2.5	20	300	20	598	20	595	20	16	20	AlGaInP
SELU2910C-S		Orange	Water clear	2.0	2.5	20	350	20	591	20	590	20	15	20	AlGaInP
SELU2910D-S		Orange	Diffused orange	2.0	2.5	20	300	20	591	20	590	20	15	20	AlGaInP
SELU2710C		Yellow	Water clear	2.1	2.5	20	270	20	572	20	571	20	15	20	AlGaInP
SELU2410C-S		Green	Water clear	2.1	2.5	20	100	20	560	20	562	20	12	20	AlGaInP
SELT2D10C-S	Ultrahigh luminosity	Pure green	3.3	4.0	20	1800	20	512	20	520	20	35	20	InGaN	
SELS2L10C-S		Aqua blue	Water clear	3.6	4.0	20	1000	20	486	20	488	20	30	20	InGaN
SELS2E10C		Blue	Water clear	3.7	4.3	20	300	20	468	20	470	20	26	20	InGaN
SELT2E10C-S		Blue	Water clear	3.3	4.0	20	550	20	458	20	465	20	25	20	InGaN
SELT2WA10C		White	Water clear	3.1	4.0	20	6000	20	Chromaticity: x=0.300, y=0.295				InGaN		
SELT2WC10C		Bulb Light	Water clear	3.1	4.0	20	5000	20	Chromaticity: x=0.452, y=0.412				InGaN		
SELT2WD10C		Fancy blue green	Water clear	3.1	4.0	20	5000	20	Chromaticity: x=0.170, y=0.365				InGaN		
SELT2WE10C		Light pink	Water clear	3.1	4.0	20	5000	20	Chromaticity: x=0.356, y=0.289				InGaN		
SELT2WF10C		Light blue green	Water clear	3.1	4.0	20	6000	20	Chromaticity: x=0.200, y=0.300				InGaN		
SELT2WH10C		Fancy green	Water clear	3.1	4.0	20	6500	20	Chromaticity: x=0.260, y=0.460				InGaN		
SELT2WJ10C	Fancy pink	Water clear	3.1	4.0	20	4000	20	Chromaticity: x=0.382, y=0.268				InGaN			
SELT2WK10C	Fancy red purple	Water clear	3.1	4.0	20	3000	20	Chromaticity: x=0.421, y=0.221				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 <sub>op</sub>	°C	-30 to +85				-30 to +80	
T <sub>stg</sub>	°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 <sub>op</sub>	°C	-30 to +85				-30 to +80	
T <sub>stg</sub>	°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 <sup>*1</sup>			70 <sup>*2</sup>		f=1kHz, tw≤100μs
VR	V	3		5			
T <sub>op</sub>	°C	-30 to +85				-30 to +80	
T <sub>stg</sub>	°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 <sub>op</sub>	°C	-30 to +85		
T <sub>stg</sub>	°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 <sub>op</sub>	°C	-30 to +80		
T <sub>stg</sub>	°C	-30 to +100		