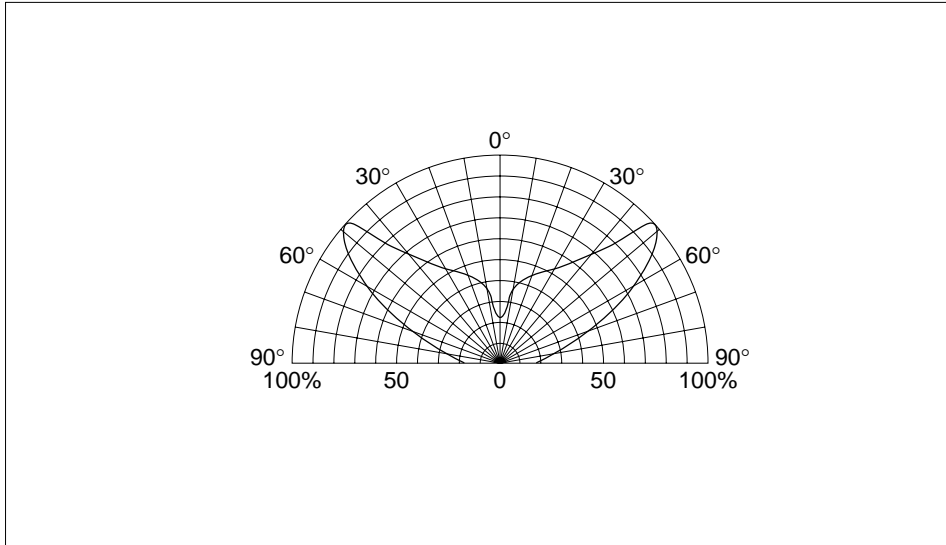


■5φ Inverted-Cone LEDs (for lighting-panels and illumination)

SEL1013M Series

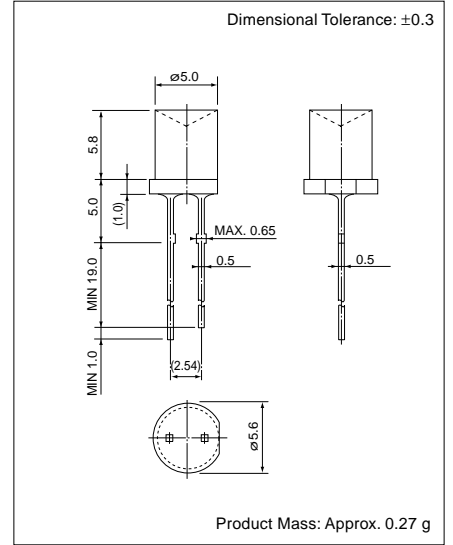
Part Number	Emitting Color		Lens Color	Forward Voltage		Luminous Intensity		Peak Wavelength		Dominant Wavelength		Spectrum Half Bandwidth		Chip Material	
				VF (V) TYP	MAX	Conditions IF (mA)	Iv (mcd) TYP	Conditions IF (mA)	λP (nm) TYP	Conditions IF (mA)	λd (nm) TYP	Conditions IF (mA)	Δλ (nm) TYP		Conditions IF (mA)
SELK1E13CM-D	High luminosity	Blue	Water clear	3.6	4.0	20	10	20	468	20	470	20	30	20	GaN on Si
SELT1E13CM	Ultrahigh luminosity	Blue	Water clear	3.1	4.0	20	40	20	458	20	465	20	25	20	InGaN
SELT1WA13CM		White	Water clear	3.1	4.0	20	200	20	Chromaticity: x=0.300, y=0.295				InGaN		
SELT1WC13CM		Bulb Light	Water clear	3.1	4.0	20	180	20	Chromaticity: x=0.452, y=0.412				InGaN		
SELT1WD13CM		Fancy blue green	Water clear	3.1	4.0	20	180	20	Chromaticity: x=0.170, y=0.365				InGaN		
SELT1WE13CM		Light pink	Water clear	3.1	4.0	20	220	20	Chromaticity: x=0.356, y=0.289				InGaN		
SELT1WF13CM		Light blue green	Water clear	3.1	4.0	20	180	20	Chromaticity: x=0.200, y=0.300				InGaN		
SELT1WH13CM		Fancy green	Water clear	3.1	4.0	20	280	20	Chromaticity: x=0.260, y=0.460				InGaN		
SELT1WJ13CM		Fancy pink	Water clear	3.1	4.0	20	200	20	Chromaticity: x=0.382, y=0.268				InGaN		
SELT1WK13CM		Fancy red purple	Water clear	3.1	4.0	20	150	20	Chromaticity: x=0.421, y=0.221				InGaN		

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		