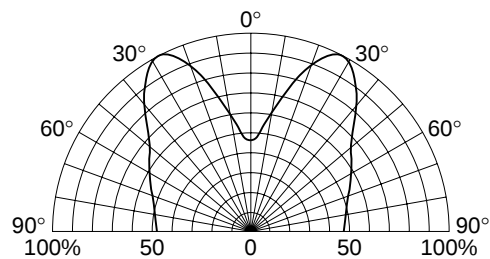


■3φ Inverted-Cone LEDs (for lighting-panels)

SEL6013 Series (available as Direct Mount)

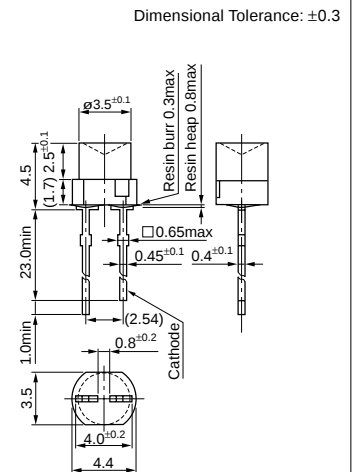
Part Number	Emitting Color		Lens Color	Forward Voltage		Luminous Intensity		Peak Wavelength		Dominant Wavelength		Spectrum Half Bandwidth		Chip Material	
				VF (V)		Conditions IF (mA)	Iv (mcd)	Conditions IF (mA)	λP (nm)	Conditions IF (mA)	λd (nm)	Conditions IF (mA)	Δλ (nm)		Conditions IF (mA)
				TYP	MAX										
SEL6413E	Green		Transparent green	2.0	2.5	10	14	20	560	10	567	10	20	10	GaP
SEL6413E-TG	Deep green		Transparent green	2.0	2.5	10	6.0	20	558	10	564	10	20	10	GaP
SEL6513C	Pure green		Water clear	2.0	2.5	10	5.0	20	555	10	559	10	20	10	GaP
SELU6213C-S	Ultrahigh luminosity	Red	Water clear	2.0	2.5	20	30	20	632	20	624	20	20	20	AlGaInP
SEL56B13W	Light amber		Diffused white	2.0	2.5	20	60	20	600	20	596	20	15	20	AlGaInP

Directional Characteristics (representative example)



External Dimensions

(Unit: mm)



Product Mass: Approx. 0.13 g

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		