CIEL LIGHT CO., LTD.

PRODUCT SPECIFICATION

Model No.: CLA-1010XX

Drawing No.: _____

Customer: _____

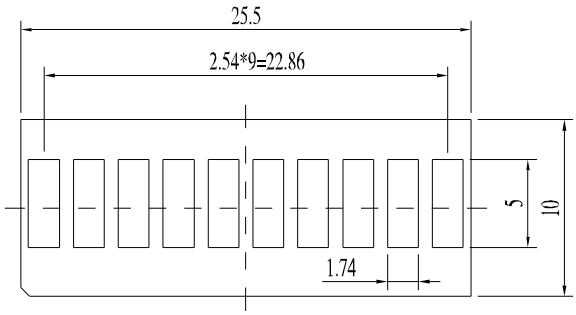
Customer's Model No.: _____

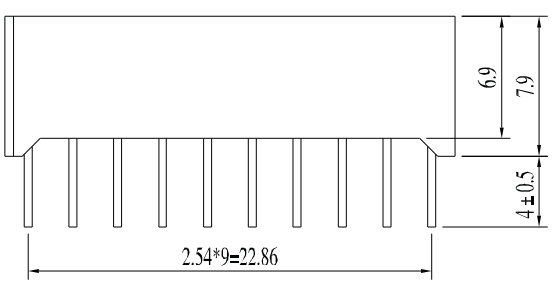
Customer's Drawing No.: _____

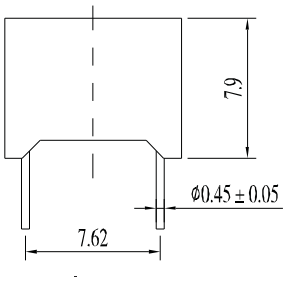
Descriptions

1. Lens Color: White Diffused
2. Surface Black Color : Back

Outline drawing

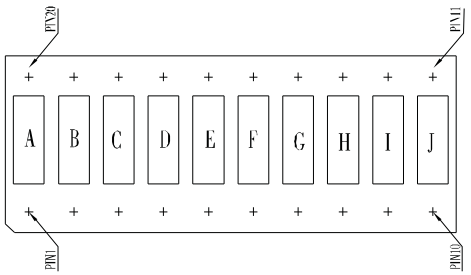


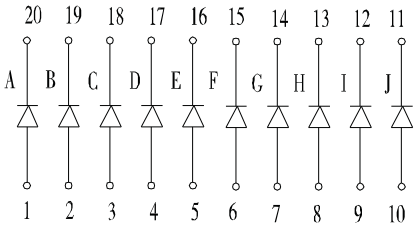




Tolerance is ± 0.25mm unless otherwise noted

Internal Circuit Diagram





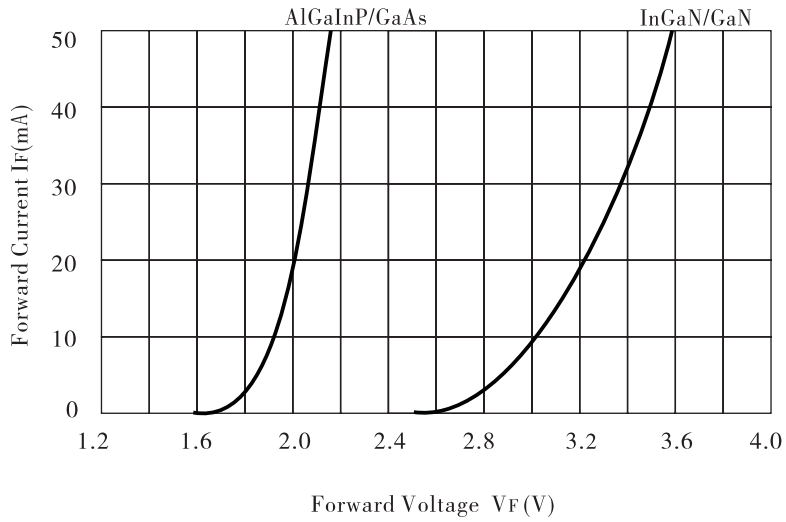
Electrical optical characteristics (Ta=25℃)

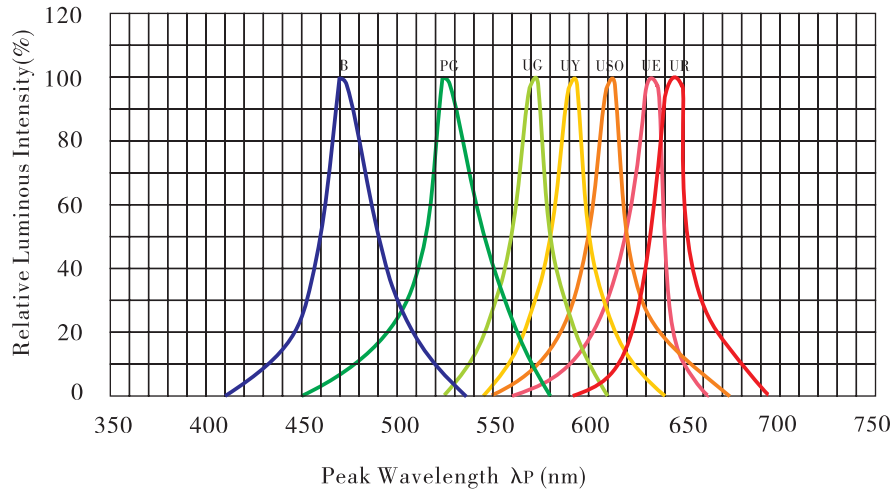
Type No.	Emitting Color	Dice Material	Forward Voltage(V) IF=20mA		Luminous Intensity (mcd) IF=10mA		λ P(nm) IF=20mA	λ d(nm) IF=20mA	Δλ (nm) IF=20mA	IR(μA) VR=5V
			Typ	Max	Min	Typ				
CLA-1010UR	Ultra Red	AlGaInP/GaAs	2.00	2.40	7.0	13.7	645	635	20	50
CLA-1010UE	Ultra Orange				13.7	26.6	632	624		
CLA-1010USO	Ultra Amber				13.7	26.6	612	606		
CLA-1010UY	Ultra Yellow				13.7	26.6	593	590		
CLA-1010UG	Ultra Green				7.0	13.7	572	570		
CLA-1010PG	Pure Green	InGaN/GaN	3.20	3.60	26.6	52.0	525	520	30	
CLA-1010B	Super Blue				26.6	52.0	468	470		

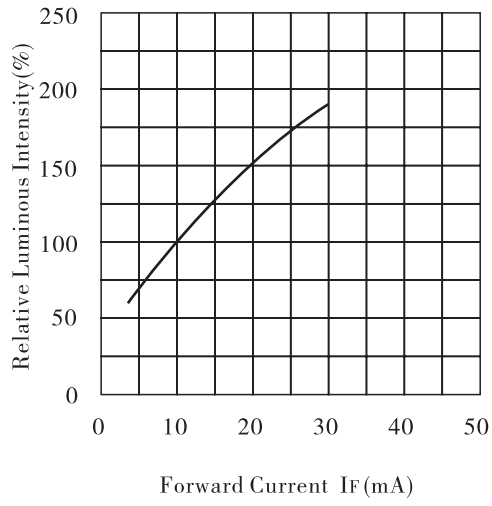
Absolute Maximum Parameters(Ta=25℃)

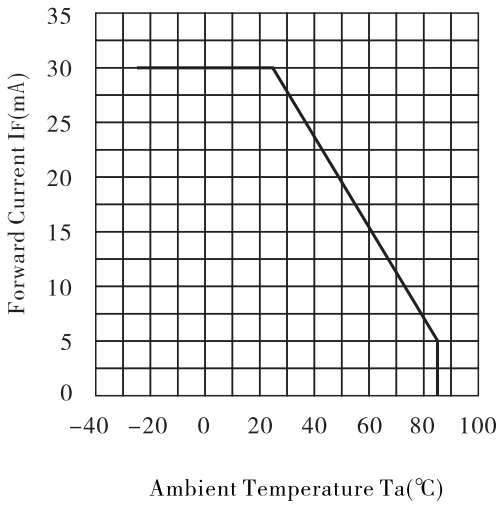
Parameter	Symbol	Condition	AlGaInP/GaAs Rating	InGaN/GaN Rating	Unit
Power Dissipation	P_D	---	80	120	mW
Reverse Voltage	V_R	---	5	5	V
Forward Average Current	I_F	---	30	30	mA
Temperature Cofficient	I/C	---	0.33	0.4	mA/ ℃
Pulse Current	IFP	Duty=1/10,1kHz	100	100	mA
Operating Temperature Range	Topr	---	-25 ~ +85		℃
Storage Temperature Range	Tstg	---	-30 ~ +100		℃
Soldering Condition	Tsd	---	260℃/5sec		℃

Typical Electro-Optical characteristic curves (Ta=25℃)









Reliability test conditions

Test Item	Test Condition	Result	Judgment criteria
Consecutive operating life test	IF=20mA, T=25℃, t=168h	0/12	Forward Voltage V_F(V)= Upper Limit × 1.2 Reverse Leakage Current I_R(μA)=Upper Limit × 2.0 Luminous Intensity I_V (mcd)=Lower Limit × 0.7
High temperature storage life test	T=100℃, t=168h	0/12	
Low temperature storage life test	T=-25℃, t=168h	0/12	
high Temperature humidity storage life test	T=85 ± 2℃, RH=85% ± 3, t=168h	0/12	
Temperature cycle test	-25℃~25℃~100℃, 30min 5min 30min 10cycles	0/12	
Thermal shock test	100℃ 0℃ 5min 5min 20 cycles	0/12	
Soldering heat test	T=260 ± 5℃, t=10s ± 1s	0/12	
Solderability test	T=230 ± 5℃, t=5s ± 0.5s	0/12	Steeped Part≥95%
Fall test	h=100cm, Free fall, 3times	0/12	Intact
Terminal strength test	W=9.8N, t=30 ± 5s	0/12	
Lead Bending test	W=4.9N, 2times	0/12	