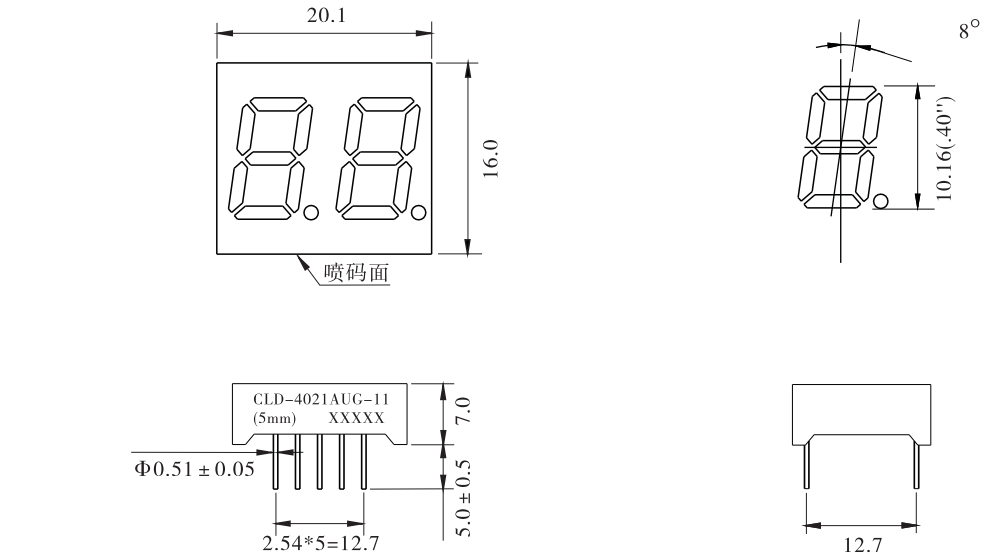
LED DISPLAY

CLD-4021AUG-11(5mm)

Descriptions

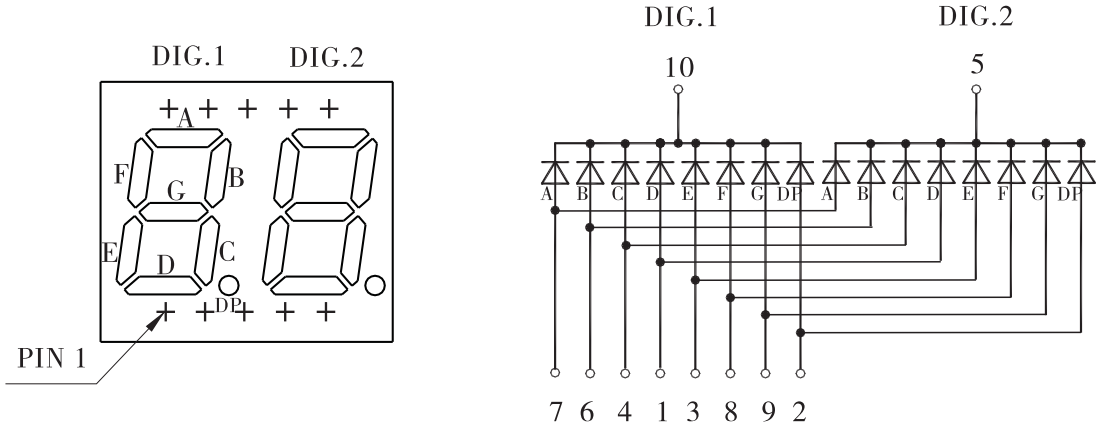
1. Emitting color:Ultra Green
2. Lens color:White Diffuseb
3.Surface black color :Black
4.Dice material:AlGaInP/GaAs

Outline drawing



Tolerance is ± 0.25mm unless otherwise noted

Internal Circuit Diagram (C.C.)



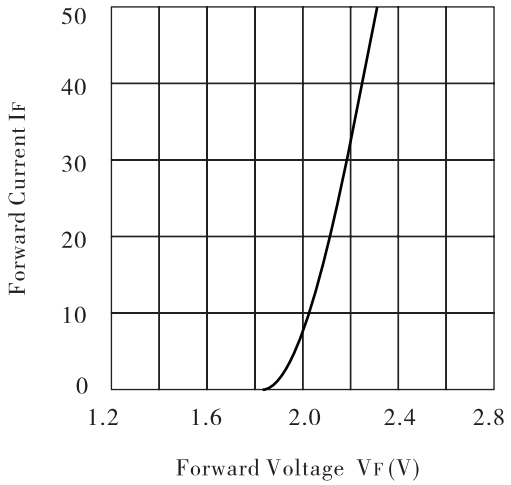
Electrical optical characteristics (Ta=25℃)

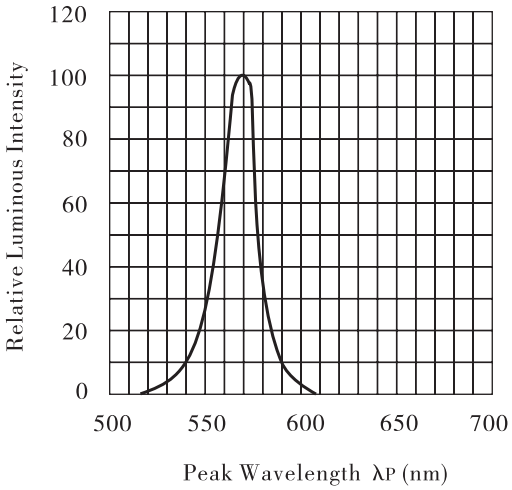
Parameter	Symbol	Ultra Green			Unit	Test Condition
		Min	Typ	Max		
Forward Voltage	V_F		2.1	2.3	V	IF=20mA
Luminous Intensity	I_V	10			mcd	IF=10mA
Peak Wavelength	λ_P		570		nm	IF=20mA
Spectral Line half-width	$\Delta\lambda$		20		nm	IF=20mA
Reverse Leakage Current	I_R			50	μA	V_R=5V
Pulse Current	IFP		8		mA	Duty=1/8,250Hz

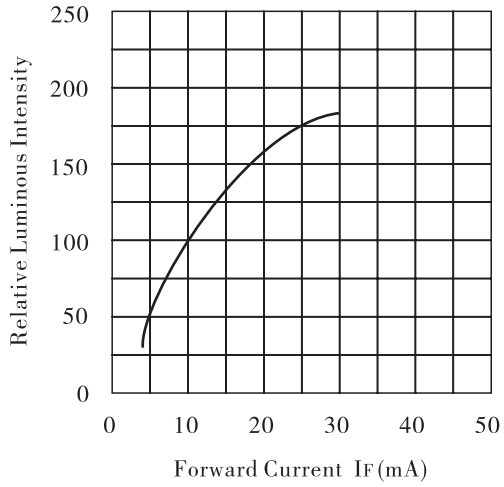
Absolute maximum parameters （Ta=25℃）

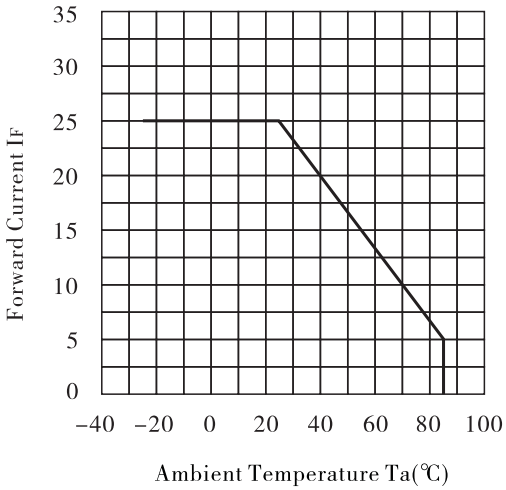
Parameter	Symbol	Condition	Rating	Unit
Power Dissipation	PD	---	80	mW
Reverse Voltage	VR	---	5	V
Forward Average Current	IF	---	30	mA
Temperature cofficient	I/C	---	0.33	mA/℃
Pulse Current	IFP	Duty=1/10,1kHz	100	mA
Operating Temperature Range	Topr	---	-25 ~ +85	℃
Storage Temperature Range	Tstg	---	-30 ~ +100	℃
Soldering Condition	Tsd	---	265℃/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	