



Data Sheet

Customer:

Part No:

Sample No:

Description:

Item No:

CLT-4031BUR-11

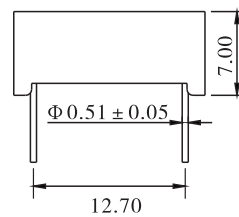
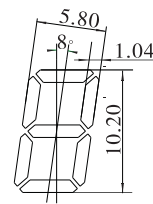
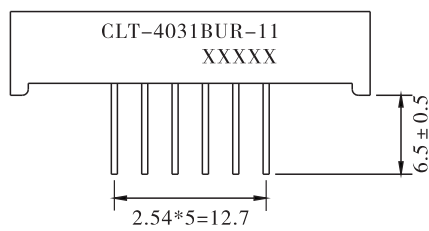
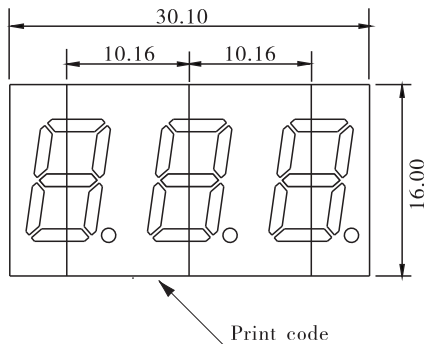
0.4 inch 3 Digit Red Color

Customer			
Check	Inspection	Approval	Date

Descriptions

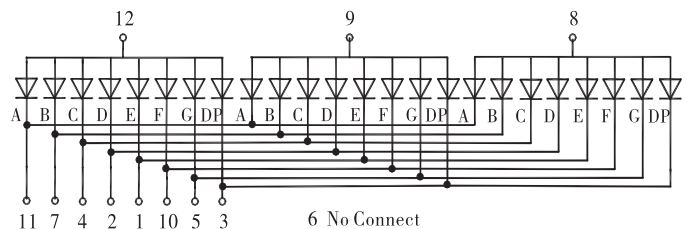
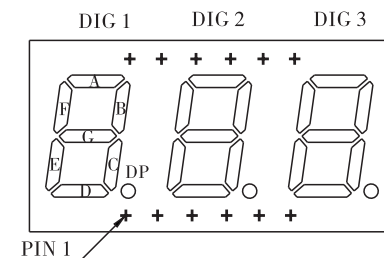
1. Emitting color: Ultra Red
2. Lens color: White Diffuse
3. Surface black color : Black
4. Dice material: AlGaInP/GaAs

Outline drawing



Tolerance is $\pm 0.25\text{mm}$ unless otherwise noted
PIN Bending $\leq \text{Length} * 1\%$

Internal Circuit Diagram (C.A.)



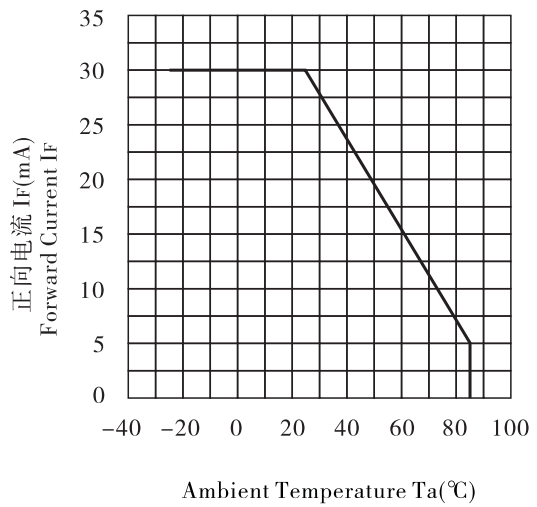
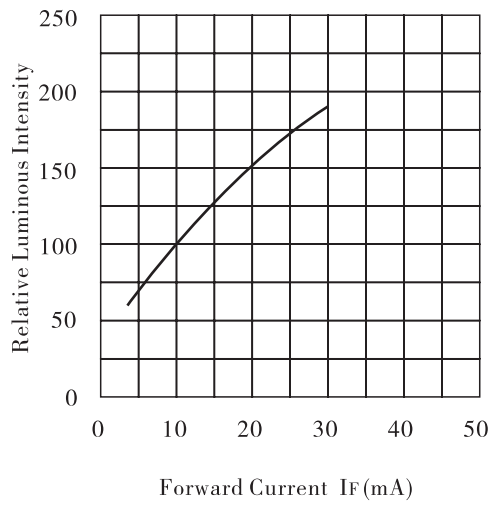
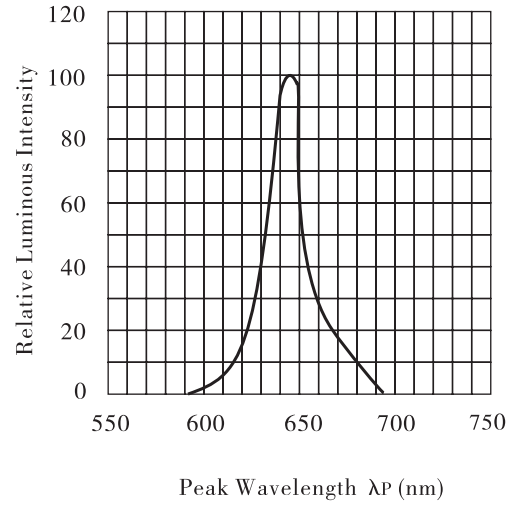
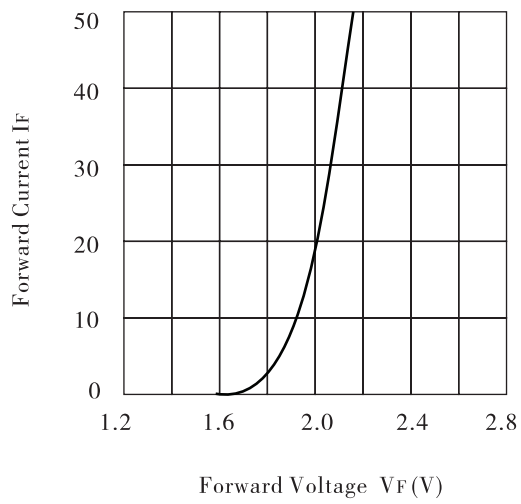
Electrical optical characteristics (Ta=25℃)

Parameter	Symbol	Ultra Red			Unit	Test Condition
		Min	Typ	Max		
Forward Voltage	V _F	---	2.0	2.2	V	IF=20mA
Luminous Intensity	I _V	4		---	mcd	IF=20mA
Peak Wavelength	λ _P	---	645	---	nm	IF=20mA
Dominant Wavelength	λ _d	---	635	---	nm	IF=20mA
Spectral Line half-width	Δλ	---	20	---	nm	IF=20mA
Reverse Leakage Current	I _R	---	---	50	μA	V _R =5V

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 coefficient	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	---	260/5sec	℃

Typical Electro-Optical characteristic curves ($T_a=25^{\circ}\text{C}$)



Reliability test conditions

Test Item	Test Condition	Result	Judgment criteria
Consecutive operating life test	IF=20mA, T=25℃, t=168h	0/12	Forward Voltage $V_F(V) = \text{Upper Limit} \times 1.2$ Reverse Leakage Current $I_R(\mu A) = \text{Upper Limit} \times 2.0$ Luminous Intensity Iv (mcd)=Lower Limit $\times 0.7$
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 $\pm$ 2℃, RH=85% $\pm$ 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 $\pm$ 5℃, t=10s $\pm$ 1s	0/12	Steeped Part $\geq 95\%$
Solderability test	T=230 $\pm$ 5℃, t=5s $\pm$ 0.5s	0/12	
Fall test	h=100cm, Free fall, 3times	0/12	
Terminal strength test	W=9.8N, t=30 $\pm$ 5s	0/12	Intact
Lead Bending test	W=4.9N, 2times	0/12	