



## Data Sheet

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Customer: \_\_\_\_\_

Part No: \_\_\_\_\_

CLS-10012BUR-11

Sample No: \_\_\_\_\_

Description: \_\_\_\_\_

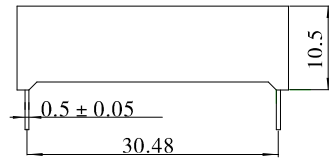
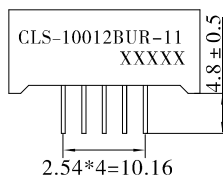
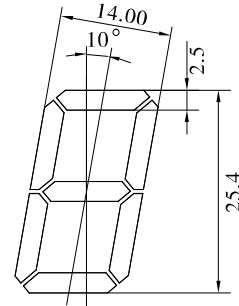
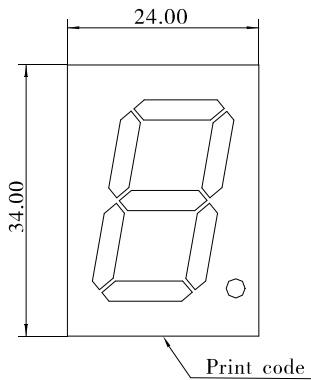
1.0 inch 1 Digit Red Color

Item No: \_\_\_\_\_

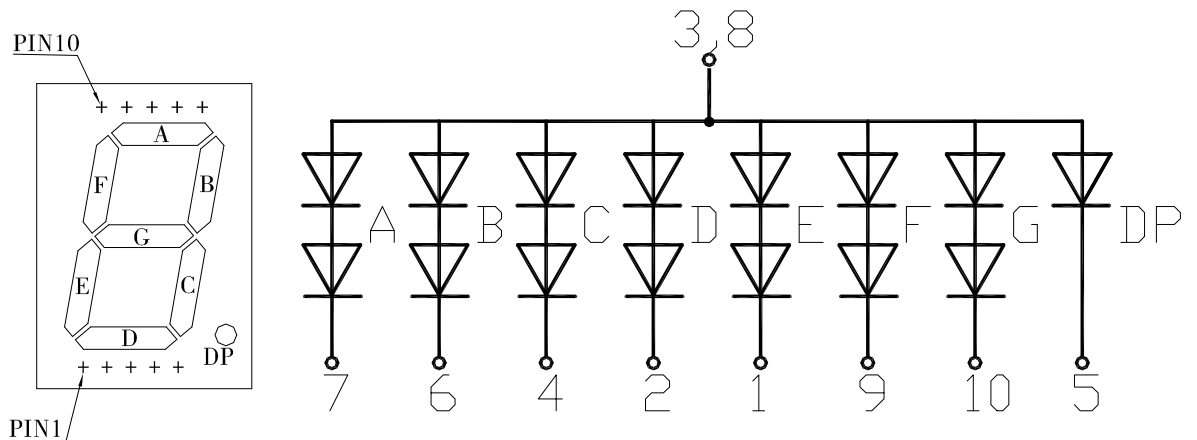
Customer			
Check	Inspection	Approval	Date

**Descriptions**

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

**Outline drawing**


未注公差:  $\pm 0.25\text{mm}$   
 Tolerance is  $\pm 0.25\text{mm}$  unless otherwise noted  
 PIN弯曲  $\leq$  长度\*1%  
 PIN Bending  $\leq$  Length\*1%

**Internal Circuit Diagram (C.A.)**


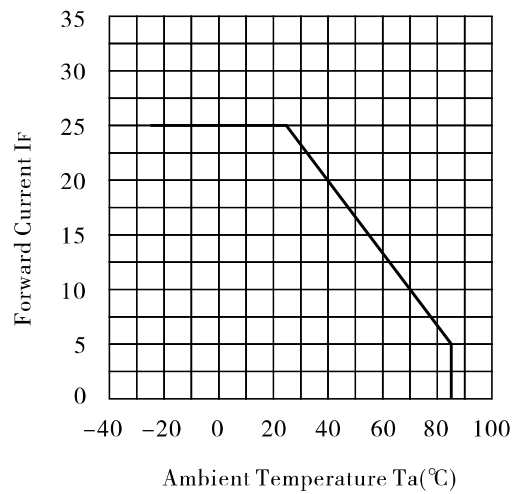
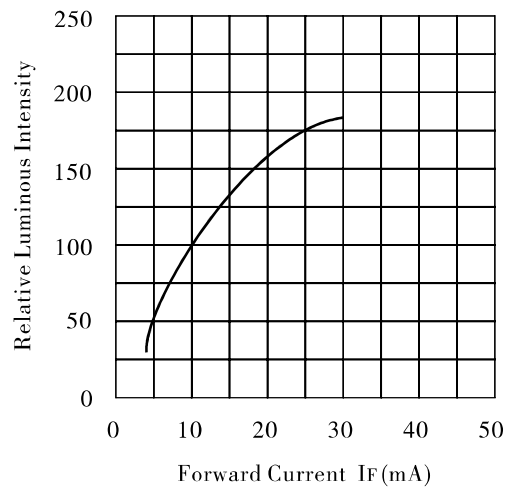
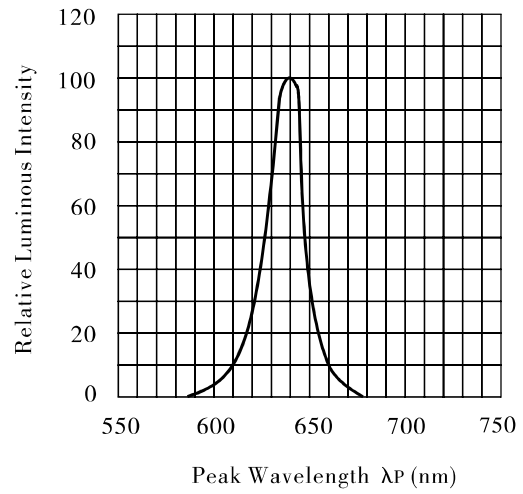
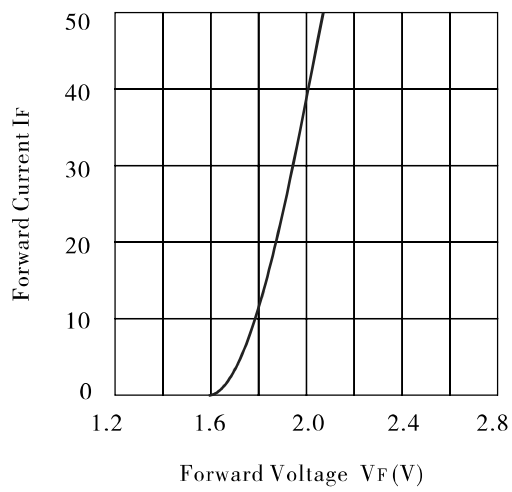
**Electrical optical characteristics ( Ta=25°C )**

Parameter	Symbol	Ultra Red			Unit	Test Condition
		Min	Typ	Max		
Forward Voltage	V <sub>F</sub>	---	2.0	2.4	V	IF=20mA
Luminous Intensity	I <sub>v</sub>	26.6	52.0	---	mcd	IF=20mA
Peak Wavelength	λ <sub>P</sub>	---	645	---	nm	IF=20mA
Dominant Wavelength	λ <sub>d</sub>	---	635	---	nm	IF=20mA
Spectral Line half-width	Δλ	---	20	---	nm	IF=20mA
Reverse Leakage Current	I <sub>R</sub>	---	---	50	μA	V <sub>R</sub> =5V

**Absolute maximum parameters ( Ta=25°C )**

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/°C
Pulse Current	IFP	Duty=1/10,1kHz	100	mA
Operating Temperature Range	Topr	---	-25 ~ +85	°C
Storage Temperature Range	Tstg	---	-30 ~ +100	°C
Soldering Condition	Tsd	---	260/5sec	°C

## Typical Electro-Optical characteristic curves ( Ta=25°C )



**Reliability test conditions**

Test Item	Test Condition	Result	Judgment criteria
Consecutive operating life test	IF=20mA, T=25°C, 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°C, t=168h	0/12	
Low temperature storage life test	T=-25°C, t=168h	0/12	
high Temperature humidity storage life test	T=85 ± 2°C, RH=85% ± 3, t=168h	0/12	
Temperature cycle test	-25°C~25°C~100°C, 30min 5min 30min 10cycles	0/12	
Thermal shock test	100°C 0°C 5min 5min 20 cycles	0/12	
Soldering heat test	T=260 ± 5°C, t=10s ± 1s	0/12	
Solderability test	T=230 ± 5°C, 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	