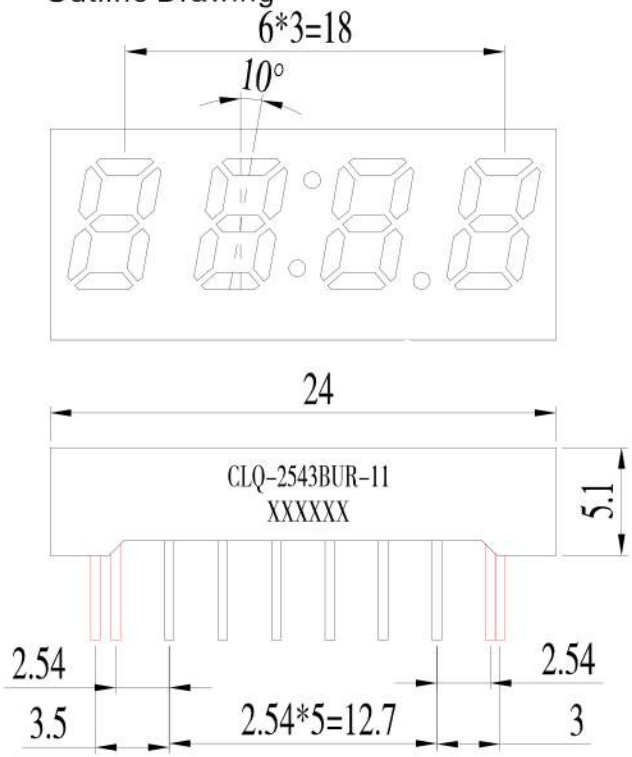
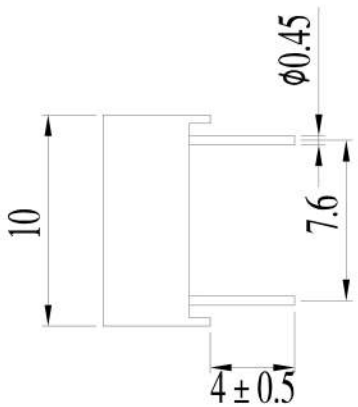
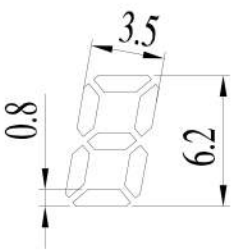
## Descriptions

Emitting Color: Red
Lens Color: White Diffused
Surface Ink Color: Black
AlGaInP/GaAs Dice Material: AlGaInP/GaAs

## Outline Drawing



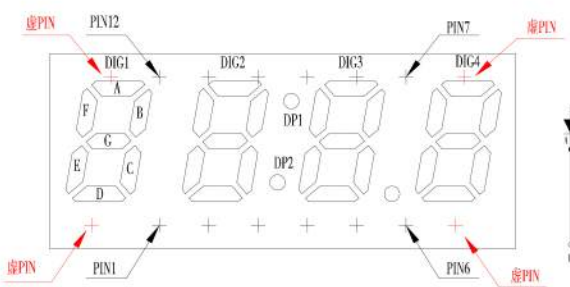



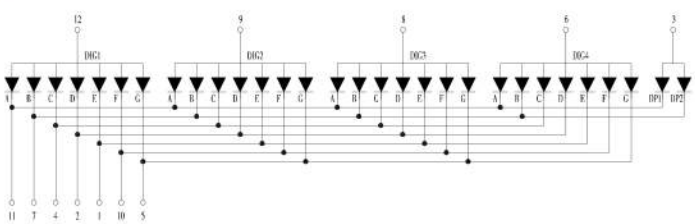




Tolerance is ± 0.25mm unless otherwise noted, Unit=mm

Pin bending ≦ length*1%

## Circuit Diagram (C.C.)



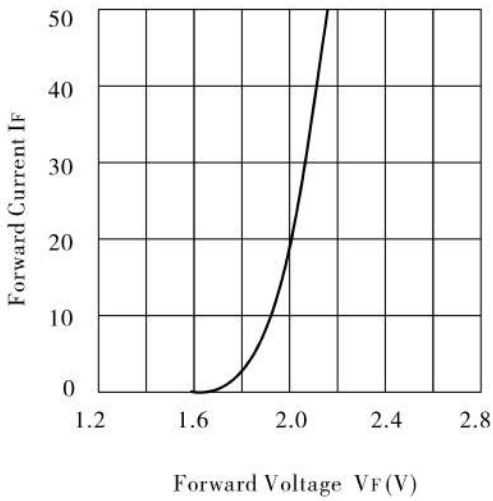
## Electrical And Optical Characteristics ( Ta=25℃ )

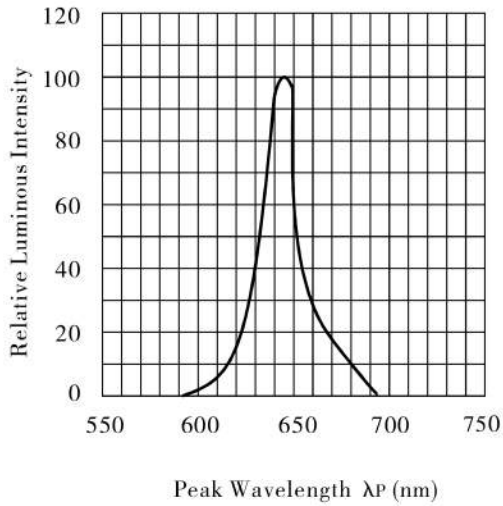
| Parameter | Symbol | Red | | | Unit | Test Condition |
|---|---|---|---|---|---|---|
| | | Min | Typ | Max | | |
| Forward Voltage | $V_F$ | --- | 2.0 | 2.4 | V | IF=20mA |
| Luminous Intensity | $I_V$ | 3.4 | 5.2 | --- | mcd | IF=10mA |
| Peak Wavelength | $\lambda_P$ | --- | 640 | --- | nm | IF=20mA |
| Dominant Wavelength | $\lambda_d$ | --- | 635 | --- | nm | IF=20mA |
| Spectral Line half-width | $\Delta\lambda$ | --- | 30 | --- | nm | IF=20mA |
| Reverse Leakage Current | $I_R$ | --- | --- | 50 | μA | $V_R$=5V |

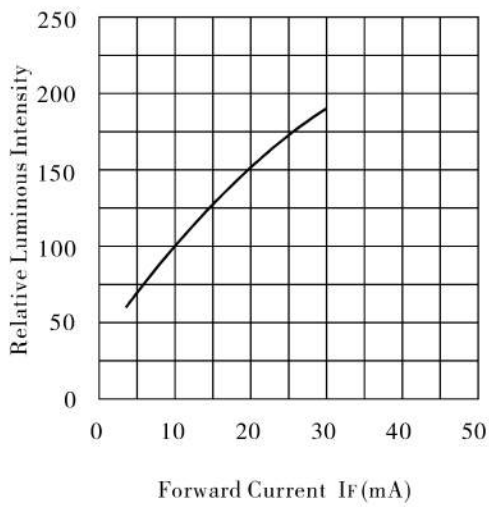
## Absolute Maximum Parameters ( Ta=25℃ )

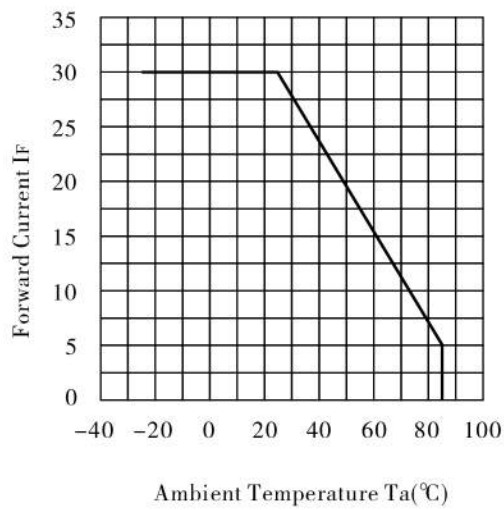
| Parameter | Symbol | Test Condition | Rating | Unit |
|---|---|---|---|---|
| Power Dissipation | $P_D$ | --- | 80 | mW |
| Reverse Voltage | $V_R$ | --- | 5 | V |
| Forward Average Current | $I_F$ | --- | 30 | mA |
| Temperature Cofficient | I/C | --- | 0.33 | mA/℃ |
| Pulse Current | $I_{FP}$ | Duty=1/10,1kHz | 100 | mA |
| Operating Temperature Range | Topr | --- | -25 ~ +85 | ℃ |
| Storage Temperature Range | Tstg | --- | -30 ~ +100 | ℃ |
| Soldering Temperature | Tsd | --- | 260℃/5sec | ℃ |

## Typical Electrical/Optical Characteristic Curves ( Ta=25℃ )



## Reliability Test Conditions

| Test Item | Test Condition | Result | Judgment criteria |
|---|---|---|---|
| Consecutive perating life test | IF=10mA, T=25℃, t=168h | 0/10 | Forward Voltage VF(V)= Upper Limit × 1.2 Reverse Leakage Current IR(μA)=Upper Limit × 2.0 Luminous Intensity IV (mcd)=Lower Limit × 0.7 |
| High temperature storage life test | T=100℃, t=168h | 0/10 | |
| Low temperature storage life test | T=-25℃, t=168h | 0/10 | |
| high Temperature humidity storage life test | T=85 ± 5℃, RH=85% ± 5, t=168h | 0/10 | |
| Temperature cycle test | -25℃~25℃~100℃, 30min 5min 30min 10cycles | 0/10 | |
| Thermal shock test | 100℃ ~ 0℃ 5min 5min 20 cycles | 0/10 | |
| Soldering heat test | T=260 ± 5℃, t=10s ± 1s | 0/10 | |
| Solderability test | T=235 ± 5℃, t=5s ± 0.5s | 0/10 | Steeped Part≥95% |
| Fall test | h=100cm, 50 times | 0/10 | Surface Appearance Photoelectric Properties Intact |
| Terminal strength test | W=9.8N, t=30 ± 5s | 0/10 | |
| Lead Bending test | W=4.9N, 2 times | 0/10 | |