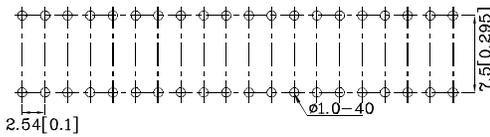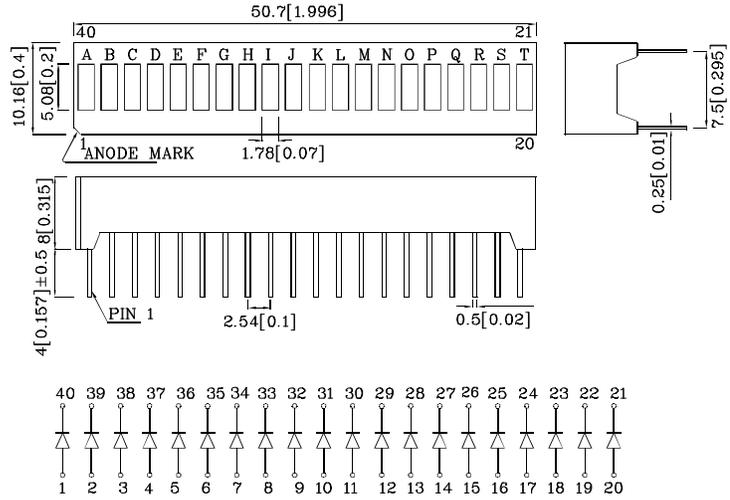**SunLED**

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## Features

● Robust package

● Uniform light disbursement

● Ideal for backlighting logos or icons

● Excellent for flush mounting

● Standard configuration: Gray face w/ white segments

● RoHS Compliant

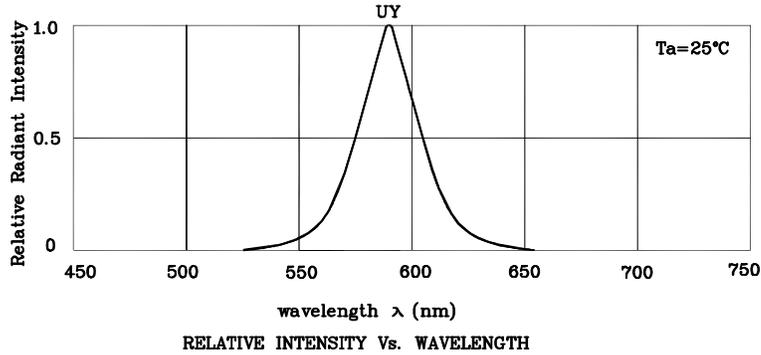RECOMMENDED PCB LAYOUT

2.54[0.1]

## Package Schematics

Notes:
1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.
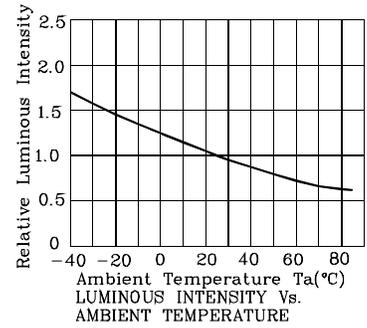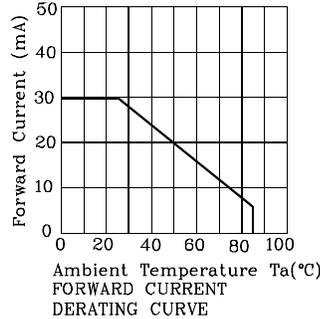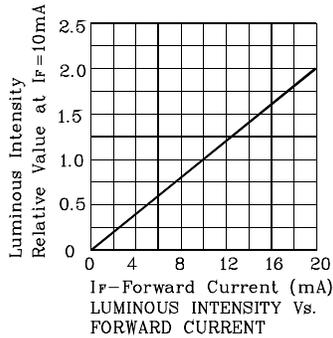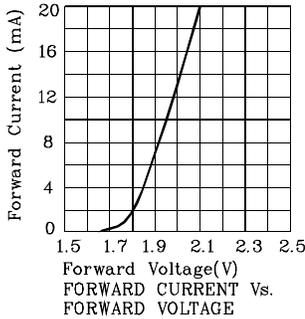2. Specifications are subject to change without notice.

| Absolute Maximum Ratings (T$_A$=25°C) | | UY (GaAsP/GaP) | Unit |
|---|---|---|---|
| Reverse Voltage | V$_R$ | 5 | V |
| Forward Current | I$_F$ | 30 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | i$_{FS}$ | 140 | mA |
| Power Dissipation | P$_D$ | 75 | mW |
| Operating Temperature | T$_A$ | -40 ~ +85 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | |
| Lead Solder Temperature [2mm Below Package Base] | | 260°C For 3-5 Seconds | |

| Operating Characteristics (T$_A$=25°C) | | UY (GaAsP/GaP) | Unit |
|---|---|---|---|
| Forward Voltage (Typ.) (I$_F$=10mA) | V$_F$ | 1.95 | V |
| Forward Voltage (Max.) (I$_F$=10mA) | V$_F$ | 2.5 | V |
| Reverse Current (Max.) (V$_R$=5V) | I$_R$ | 10 | uA |
| Wavelength of Peak Emission (Typ.) (I$_F$=10mA) | λP | 590 | nm |
| Wavelength of Dominant Emission (Typ.) (I$_F$=10mA) | λD | 588 | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) (I$_F$=10mA) | △λ | 35 | nm |
| Capacitance (Typ.) (V$_F$=0V, f=1MHz) | C | 20 | pF |

| Part Number | Emitting Color | Emitting Material | Luminous Intensity (I$_F$=10mA) ucd | | Wavelength nm λP | Description |
|---|---|---|---|---|---|---|
| | | | min. | typ. | | |
| XGUYX20D | Yellow | GaAsP/GaP | 2200 | 8990 | 590 | 20 Segments Bar graph-Display |

Apr 20,2011

XDSA1923   V7   Layout: Maggie L.

SunLED
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RELATIVE INTENSITY Vs. WAVELENGTH

❖ **UY**



FORWARD CURRENT Vs.
FORWARD VOLTAGE

LUMINOUS INTENSITY Vs.
FORWARD CURRENT

FORWARD CURRENT
DERATING CURVE

LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

Wave Soldering Profile for Thru-Hole Products (Pb-Free Components)
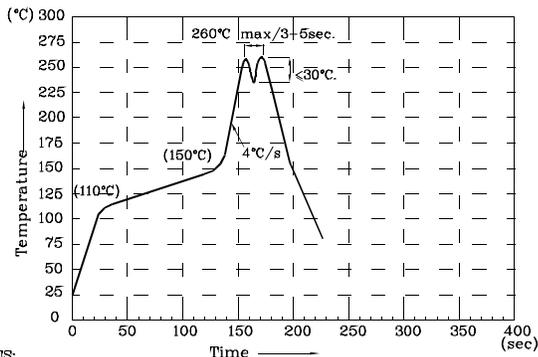


NOTES:
1. Recommend the wave temperature 245℃~260℃. The maximum soldering temperature should be less than 260℃.
2. Do not apply stress on epoxy resins when temperature is over 85℃.
3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
4. During wave soldering, the PCB top-surface temperature should be kept below 105℃.
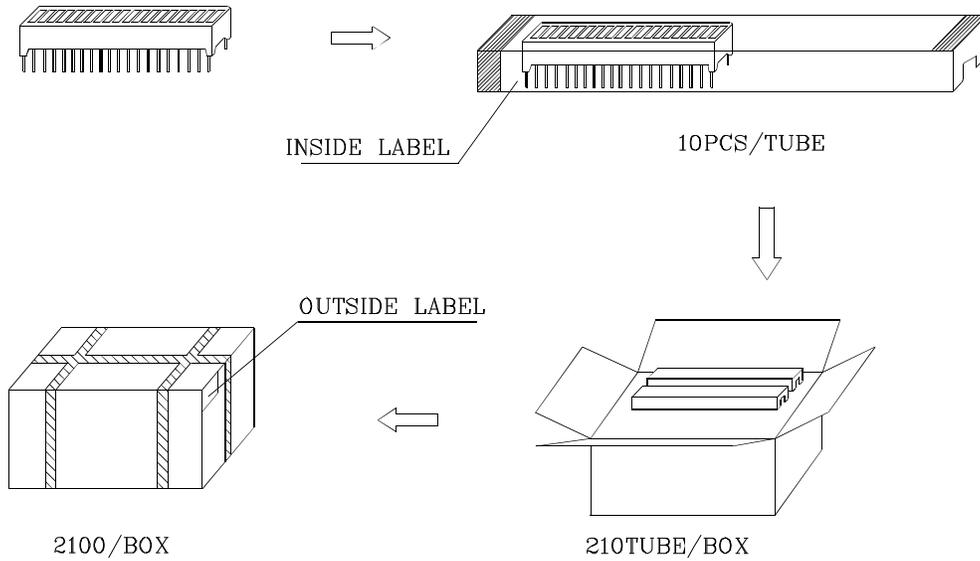5. No more than once.

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength),

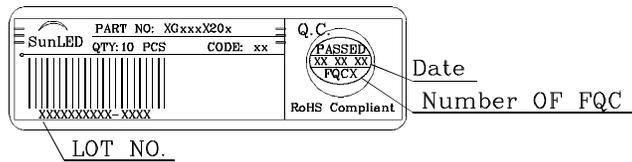the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm

2. Luminous Intensity / Luminous Flux: +/-15%

3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

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## PACKING & LABEL SPECIFICATIONS

INSIDE LABEL

10PCS/TUBE

OUTSIDE LABEL

2100/BOX

210TUBE/BOX

Inside Label On IC-tube

PART NO: XGxxxX20x
SunLED  QTY: 10 PCS      CODE: xx

Q.C.

PASSED
XX XX XX
FQCX

RoHS Compliant

Date
Number OF FQC

XXXXXXXXX-XXXX

LOT NO.

Outside Label On Box

XXXXXX

XGxxxX20x

2100 PCS         XX

Bin Code

Number OF QA

QAx
XX XX XX
PASSED

Date

RoHS Compliant