

PRODUCT SPECIFICATION

Model No.: FYA-R2012ZUR-01

| Descriptions: |
|--|
| <ul style="list-style-type: none"> ■ Bargraph Digit Display ■ Shape: Rectangular ■ Diameter: 20.00*12.00mm ■ Emitting Color : Ultra Red ■ Chip Material: AlGaInP ■ White Face ■ White Segment |



| CUSTOMER APPROVED SIGNATURES | APPROVED BY | CHECKED BY | PREPARED BY |
|------------------------------|-------------|------------|-------------|
| | | | |

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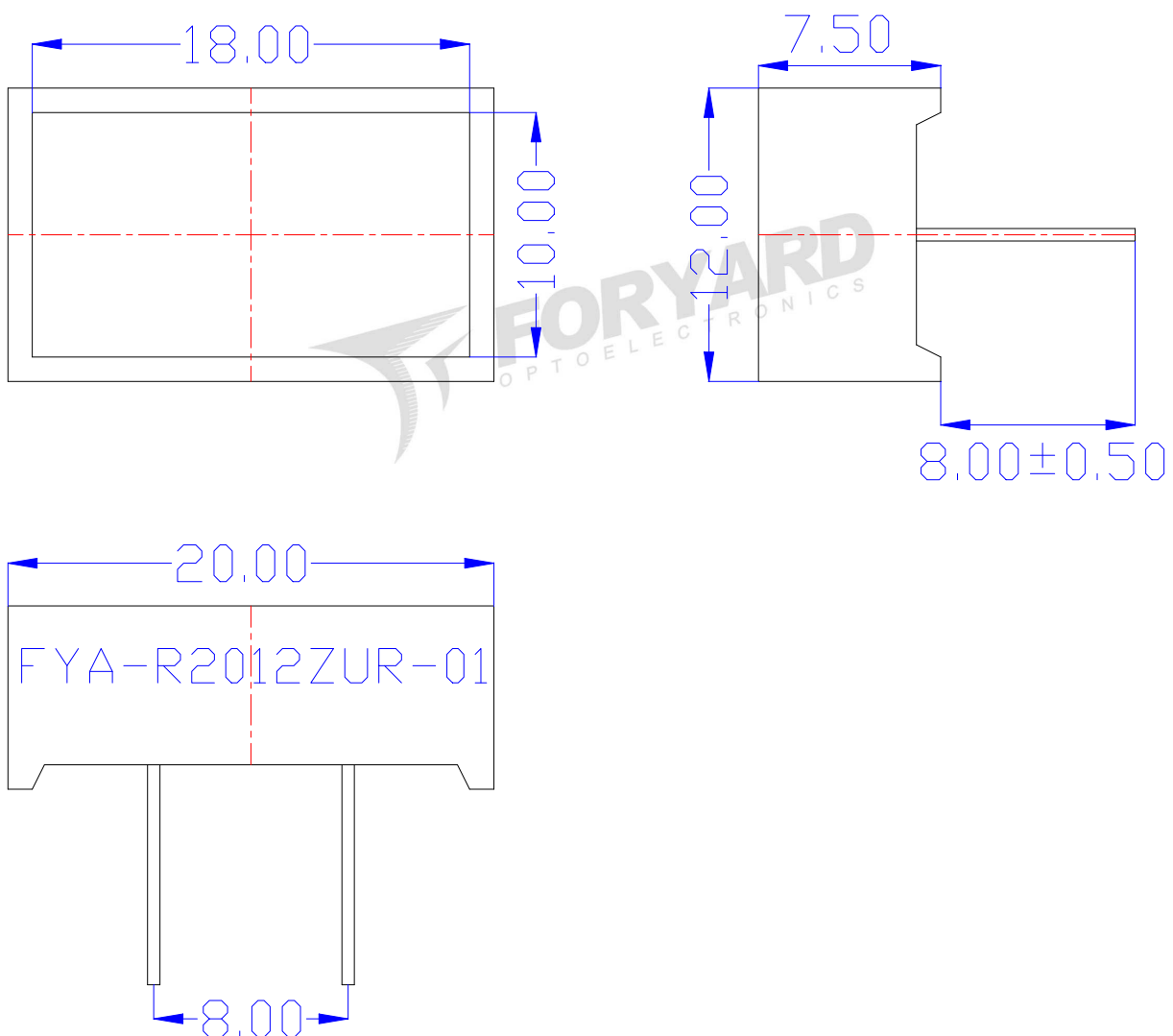
Http://www.foryard.com

Model No.: FYA-R2012ZUR-01

■ Features -

1. 0.79 inch (20.00mm) height.
2. Case mold type.
3. RoHS compliant.
4. Low current operation
5. Low power consumption.
6. Easy mounting on P.C. board or socket.

■ Mechanical Dimensions -

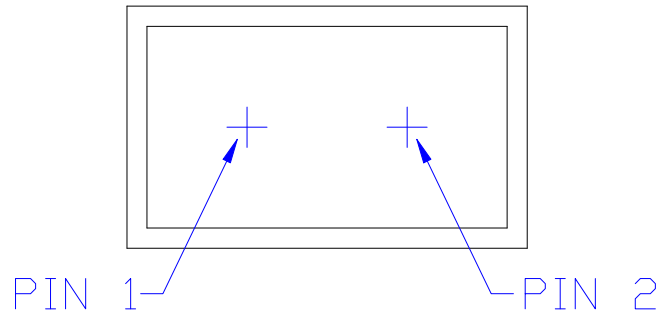


Notes:

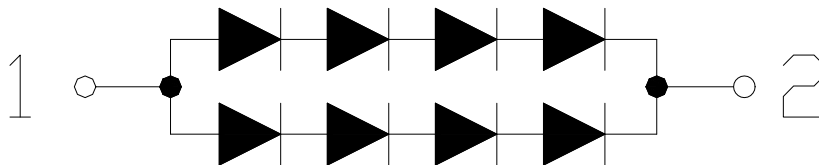
1. All pins are $\Phi 0.50 [0.020]$ mm
2. Dimension in millimeter [inch], tolerance is $\pm 0.25 [0.010]$ and angle is $\pm 1^\circ$ unless otherwise noted.
3. Bending \leq Length*1%.
4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

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■ All Light On Segments Feature & Pin Position



■ Internal Circuit Diagrams -



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■ Absolute maximum ratings

(Ta=25°C)

| Parameter | Symbol | Test Condition | Value | | Unit |
|-----------------------|--------|-----------------|-------|-----|------|
| | | | Min | Max | |
| Reverse Voltage | VR | IR=30 | 5 | — | V |
| Forward Current | IF | — | — | 30 | mA |
| Power Dissipation | Pd | — | — | 100 | mW |
| Pulse Current | Ipeak | Duty=0.1mS,1KHz | — | 150 | mA |
| Operating Temperature | Topr | — | -40 | +85 | °C |
| Storage Temperature | Tstr | — | -40 | +85 | °C |

■ Electrical-Optical Characteristics

● Color Code & Chip Characteristics:(Test Condition:IF=20mA)

(Ta=25°C)

| Emitting Color | | Dice Material | Peak Wave Length(λ_p) | Spectral Line halfwidth($\Delta\lambda_{1/2}$) | Forward Voltage(VF) Unit:V | | Luminous Intensity (Iv) Unit:mcd |
|---|-----------|---------------|---------------------------------|--|-------------------------------|-------|-------------------------------------|
| | | | | | Typ | Max | |
| UR | Ultra Red | AlGaInP | 635nm | 20nm | 1.90 | 2.50 | 20-40 |
| Segment-to-Segment Luminous Intensity ratio(Iv-M) | | | | | | 1.5:1 | |

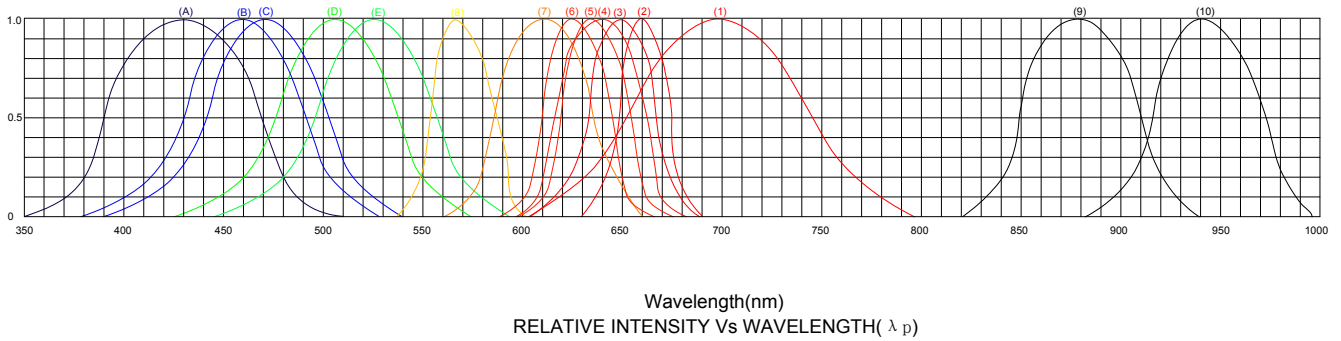
Note:

- 1.Luminous Intensity is based on the Foryard standards.
- 2.Pay attention about static for InGaN

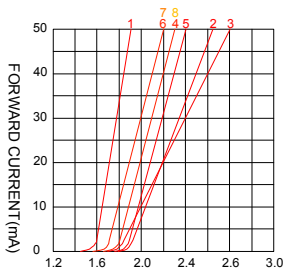
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Typical Electrical / Optical Characteristics Curves

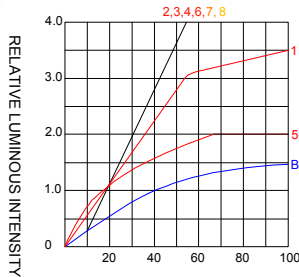
(Ta = 25°C Unless Otherwise Noted)



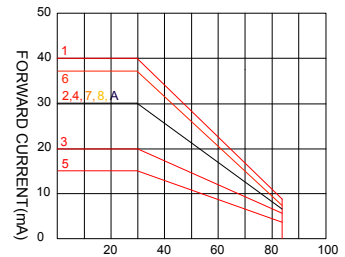
- | | |
|--------------------------------|------------------------------------|
| (1)-GaP 700nm/Red | (9)-GaAlAs 880nm |
| (2)-AlGaAs/SH 660nm/Hi Red | (10)-GaAs/GaAs & GaAlAs/GaAs 940nm |
| (3)-AlGaAs/DH 650nm/Super Red | (A)-GaN/SiC 430nm/Blue |
| (4)-AlGaInP/640nm/Ultra Hi Red | (B)-InGaN/SiC 460nm/Blue |
| (5)-AlGaInP/635nm/Ultra Red | (C)-InGaN/SiC 470nm/Blue |
| (6)-GaAlP/AlGaInP/625nm/Orange | (D)-InGaN/SiC 505nm/Ultra Green |
| (7)-GaAsP/AlGaInP 610nm/Amber | (E)-InGaN/SiC 525nm/Ultra Green |
| (8)-GaP 570nm/Yellow Green | |



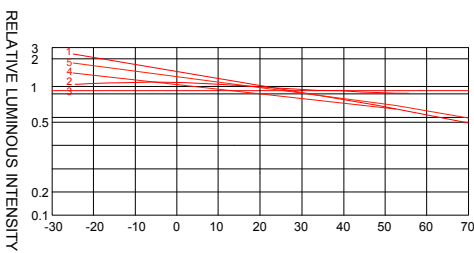
FORWARD VOLTAGE(Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



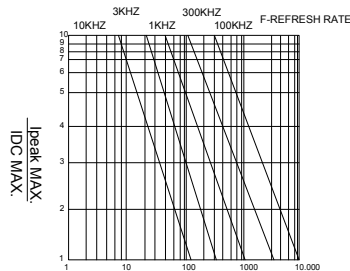
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS FORWARD
CURRENT



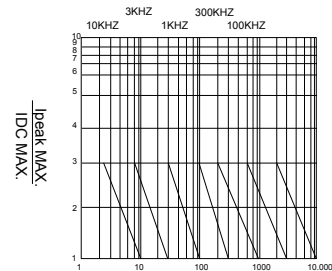
AMBIENT TEMPERATURE Ta(°C)
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



**AMBIENT TEMPERATURE
Ta(°C)**



**tp-PULSE DURATION μS
(1,2,3,4,6,8,B,D,J,K)**



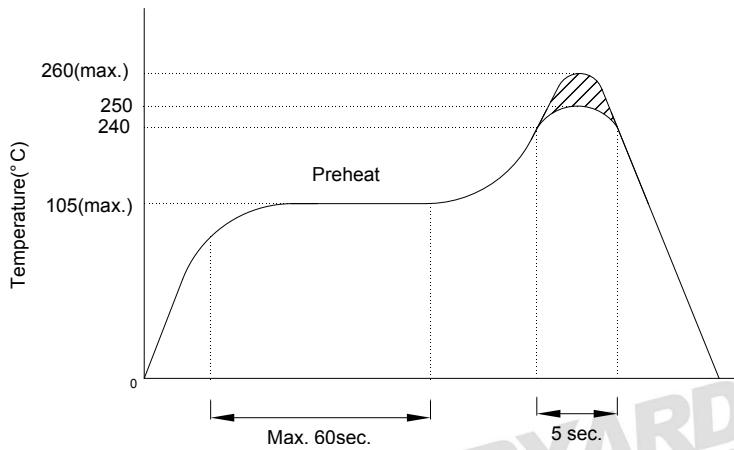
**tp-PULSE DURATION μS
(5)**

NOTE: 25°C free air temperature unless otherwise specified

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■ Precautions For Use -

1. Recommended Soldering conditions-Wave Soldering

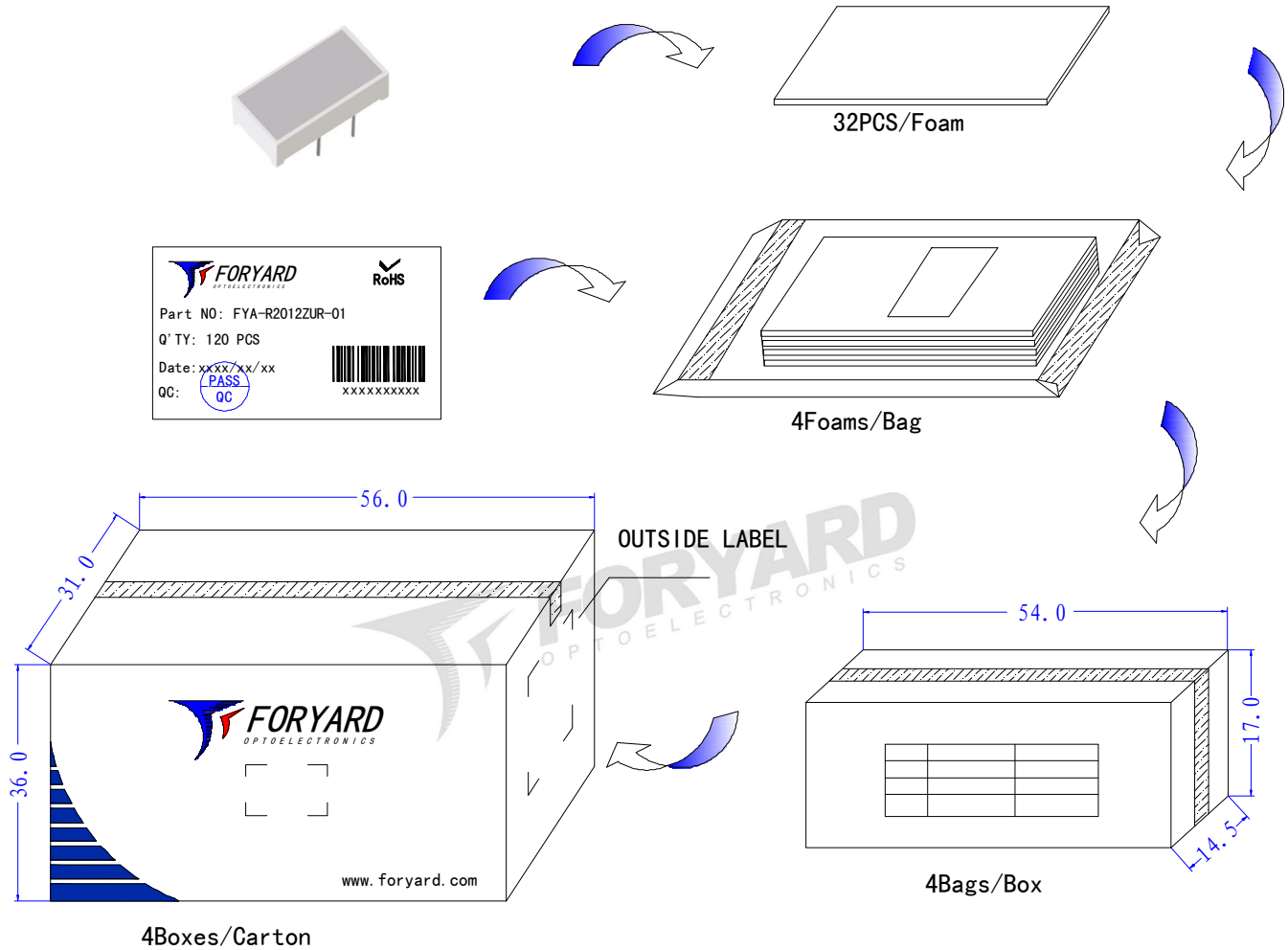


2. Soldering Iron

Basic SPEC. is ≤ 5 sec. When 260°C. If temperature is higher, time should be shorter (+10°C → -1sec.).
 Power dissipation of iron should be smaller than 15W, and temperature should be controllable.
 Surface temperature of the device should be under 230°C.

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■ Packing Diagram




FORYARD
OPTOELECTRONICS

LED
PN: FYA-R2012ZUR-01
Qty: 7680 PCS
Date: xxxx/xx/xx
GW: 21.20KG QC: **PASS**
NW: 18.64KG **QC**


XXXXXXXXXX

OUTSIDE LABEL

Note: The specifications are subject to change without notice. Please contact us for updated information.