

# PRODUCT SPECIFICATION

**Model No. FYS-5211AUG-11**

Descriptions:
0.52 Inch Single Digit Display Common Cathode Emitting Color Ultra Green Chip Material:AlGaInP Black Face White Segment



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

**NINGBO FORYARD OPTOELECTRONICS CO.,LTD**

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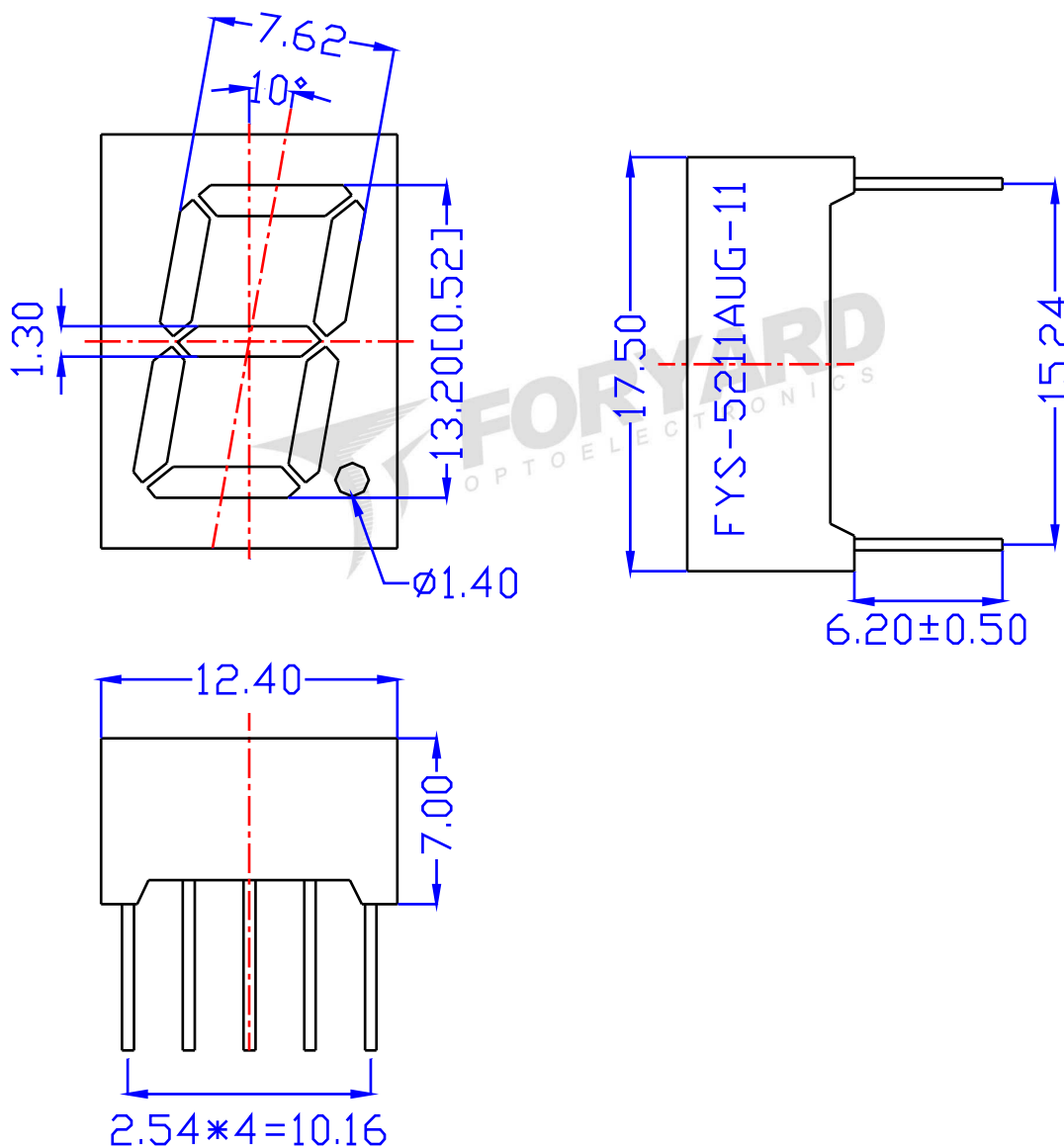
**Fax:** 0086-574-87927917

**E-mail:**Sales@foryard.com ( General)

**Http://**www.foryard.com

**Model No. FYS-5211AUG-11**
**Features -**

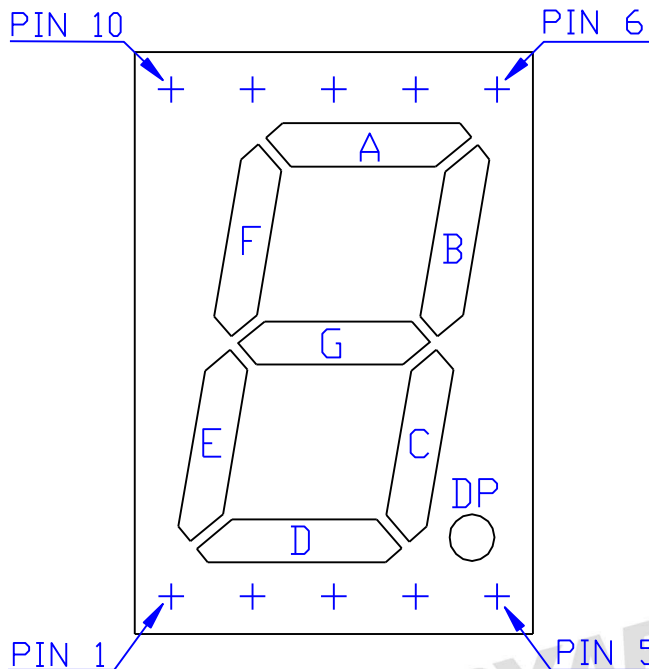
1. 0.52 inch (13.20mm) digit height.
2. Case mold type.
3. RoHS compliant.
4. Low current operation
5. Low power consumption.
6. Easy mounting on P.C. board or socket.

**Mechanical Dimensions -**

**Notes:**

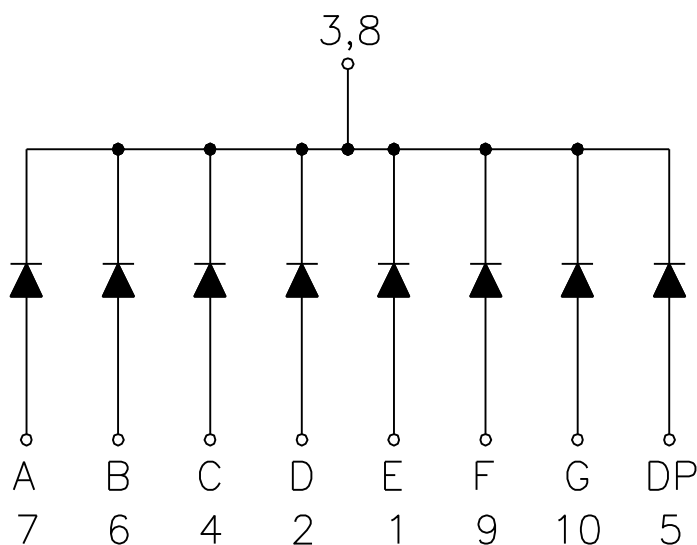
1. All pins are  $\varnothing 0.45 [0.018]$  mm
2. Dimension in millimeter [inch], tolerance is  $\pm 0.25 [0.010]$  and angle is  $\pm 1^\circ$  unless otherwise noted.
3. Bending Length\*1%.
4. The specifications, characteristics and technical data described in the datasheet are subject to change without 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 )

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	
Storage Temperature	Tstr	—	-40	+85	

**Electrical-Optical Characteristics**

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

(Ta=25 )

Emitting Color	Dice Material	Peak Wave Length(ëp)	Spectral Line halfwid h(Äë1/2)	Forward Voltage(VF) Unit:V		Luminous Intensity (Iv) Unit:mcd
				Typ	Max	
UG Ultra Green	AlGaInP	570nm	30nm	1.90	2.50	30~60
Segment-to-Segment Luminous Intensity ratio(Iv-M)					1.5:1	

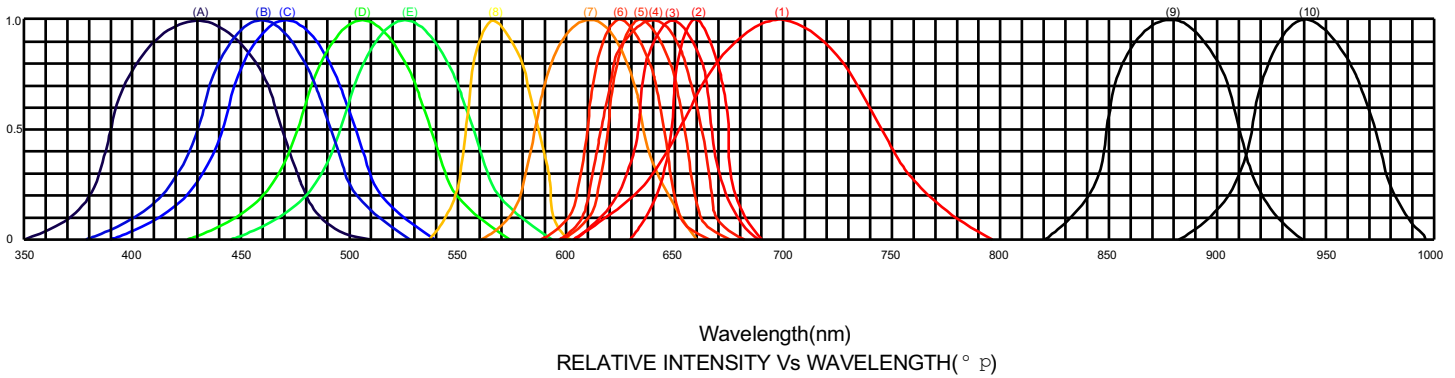
Note:

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

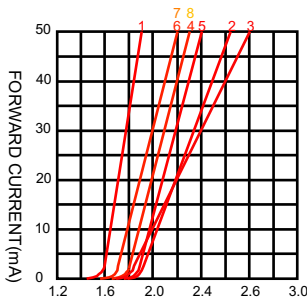
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**Typical Electrical / Optical Characteristics Curves**

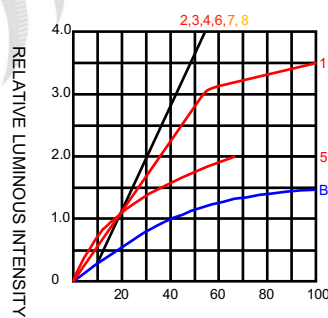
(Ta = 25 Unless Otherwise Noted)



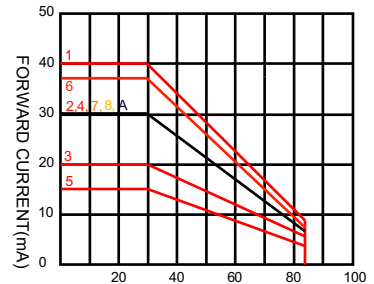
- (1)-GaP 700nm/Red
- (2)-AlGaAs/SH 660nm/Hi Red
- (3)-AlGaAs/DH 650nm/Super Red
- (4)-AlGaInP/640nm/Ultra Hi Red
- (5)-AlGaInP/635nm/Ultra Red
- (6)-GaAlP/AlGaInP/625nm/Orange
- (7)-GaAsP/AlGaInP 610nm/Amber
- (8)-GaP 570nm/Yellow Green
- (9)-GaAlAs 880nm
- (10)-GaAs/GaAs & GaAlAs/GaAs 940nm
- (A)-GaN/SiC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



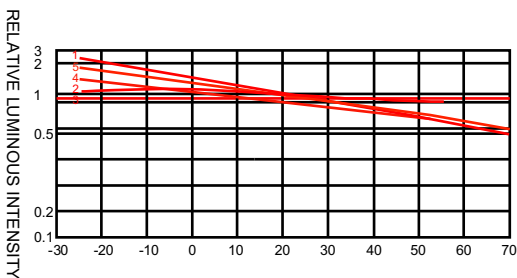
**FORWARD VOLTAGE(Vf)**  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



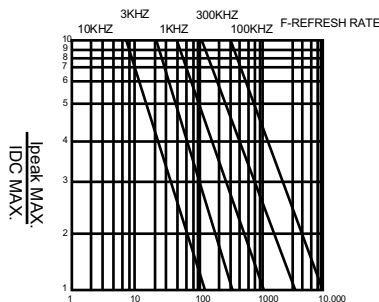
**FORWARD CURRENT (mA)**  
RELATIVE LUMINOUS  
INTENSITY VS FORWARD  
CURRENT



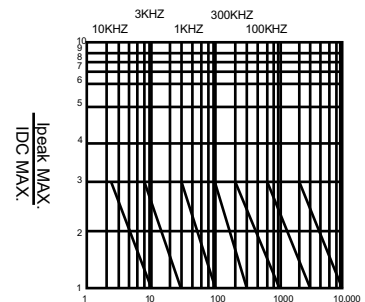
**AMBIENT TEMPERATURE Ta(°C)**  
FORWARD CURRENT VS. AMBIENT  
TEMPERATURE



**AMBIENT TEMPERATURE  
Ta(°C)**



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



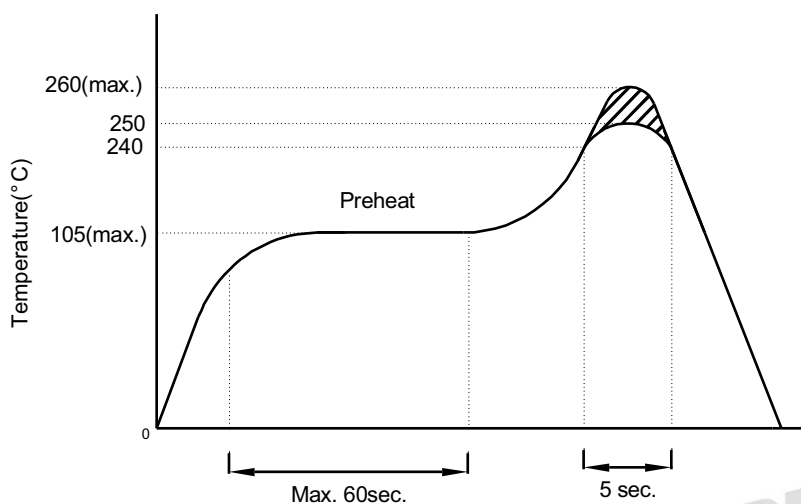
**tp-PULSE DURATION uS  
(5)**

NOTE:25°C free air temperature unless otherwise specified

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**Precautions For Use -**

**1. Recommended Soldering conditions-Wave Soldering**

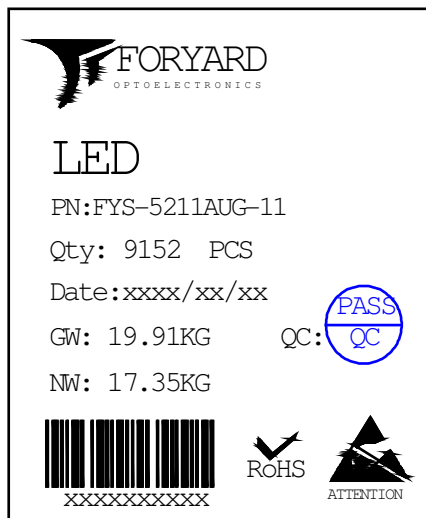
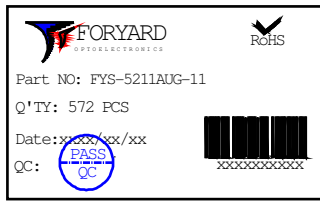
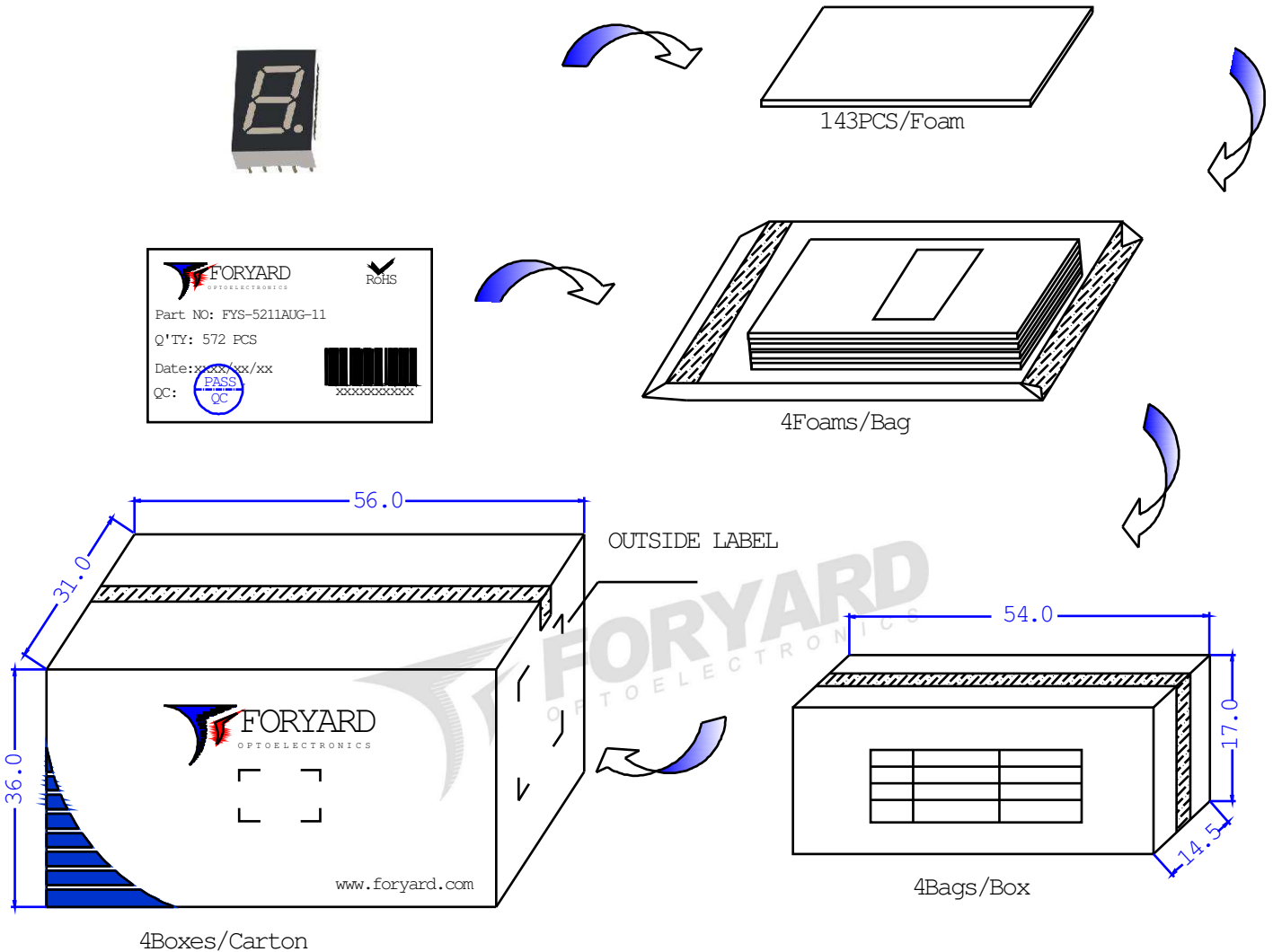


**2. Soldering Iron**

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

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Packing Diagram



OUTSIDE LABEL