

# PRODUCT SPECIFICATION

**Model No.: FYM-12881E/FXX-XX**

## Descriptions & Features:

- 1.2 inch (32.00mm) Matrix height, Dot Matrix Display
- 8\*8Array with X-Y Select.
- Case mold type.
- RoHS compliant.
- Low current operation
- Low power consumption.
- Easy mounting on P.C. board or socket.



CUSTOMER APPROVED SIGNATURES	APPROVED BY	CHECKED BY	PREPARED BY

**NINGBO FORYARD OPTOELECTRONICS CO.,LTD**

**Add:**NO.115 Qixin Road Ningbo Zhejiang China

**Zip:**315051

**Tel:** 0086-574-87933652 87927870 87922206

**Fax:** 0086-574-87927917

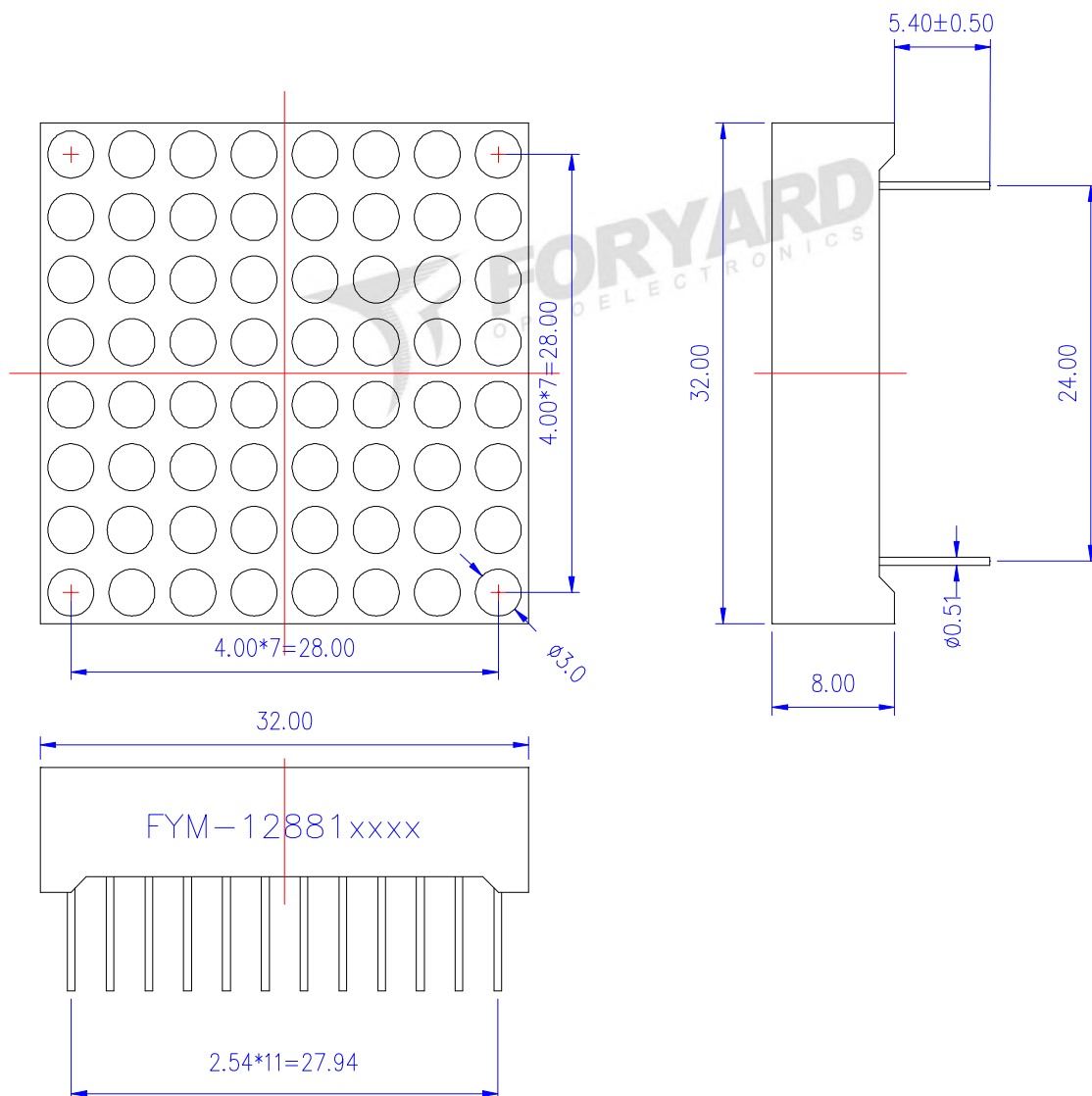
**E-mail:**Sales@foryard.com ( General)

Model No.: FYM-12881E/FXX-XX

■ -XX: REF Surface / Epoxy color

Color \ Number	0	1	2	3	4
REF Surface Color	<input type="radio"/> White	<input type="radio"/> Black	<input type="radio"/> Gray	<input type="radio"/> Red	<input type="radio"/> Green
Epoxy Color	<input type="radio"/> Water Clear	<input type="radio"/> White	<input type="radio"/> Red	<input type="radio"/> Green	<input type="radio"/> Yellow

■ Mechanical Dimensions

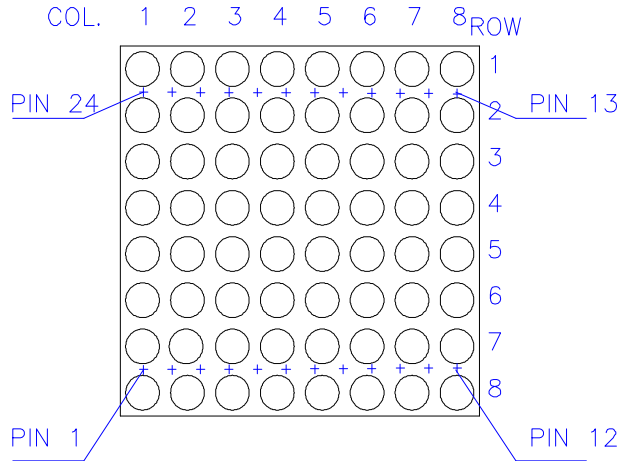


Notes:

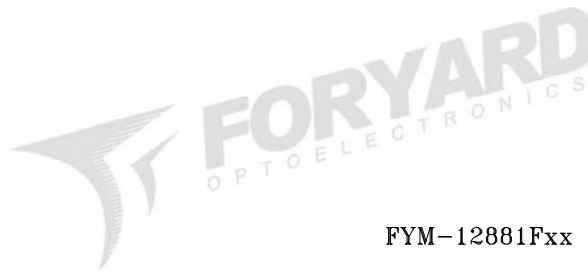
1. All pins are  $\Phi 0.51$  [.018]mm
2. Dimension in millimeter [inch], tolerance is  $\pm 0.25$  [.010] and angle is  $\pm 1^\circ$  unless otherwise noted.
3. Bending  $\leq$  Length\*1%.
4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

**Model No.: FYM-12881E/FXX-XX**

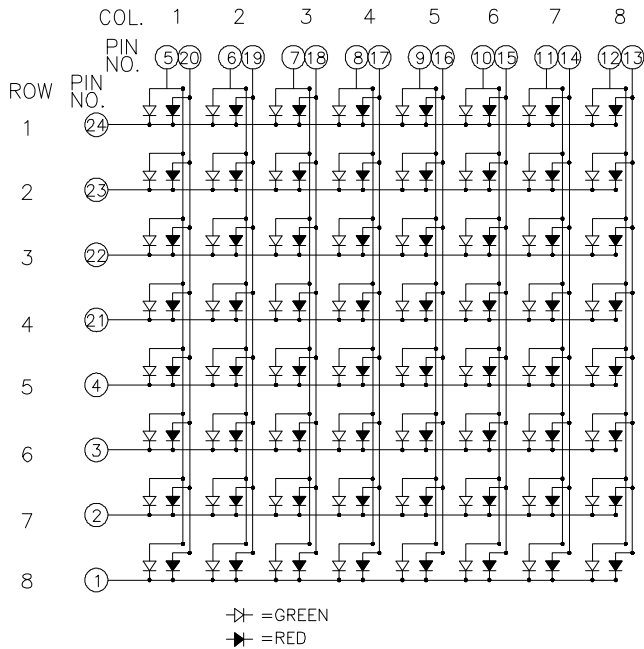
**■ All Light On Dot Feature & Pin Position**



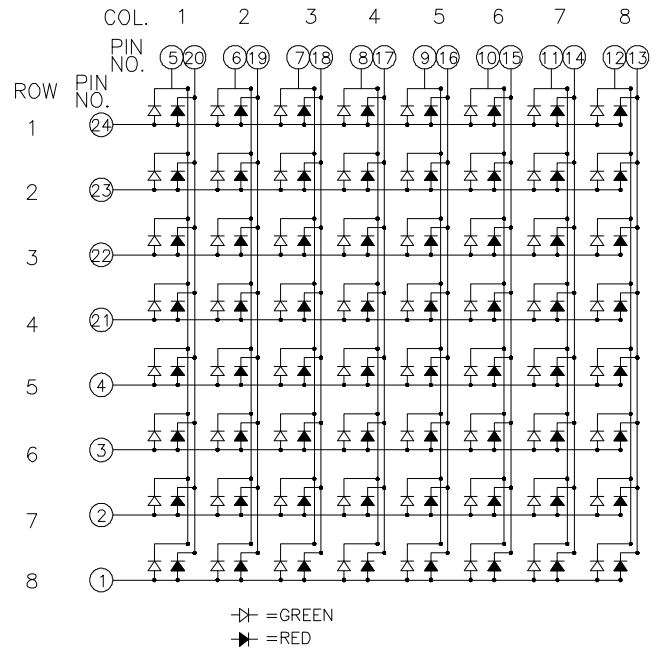
**■ Internal Circuit Diagrams**



**FYM-12881E<sub>xx</sub>**



**FYM-12881F<sub>xx</sub>**



**Model No.: FYM-12881E/FXX-XX**

■ **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)

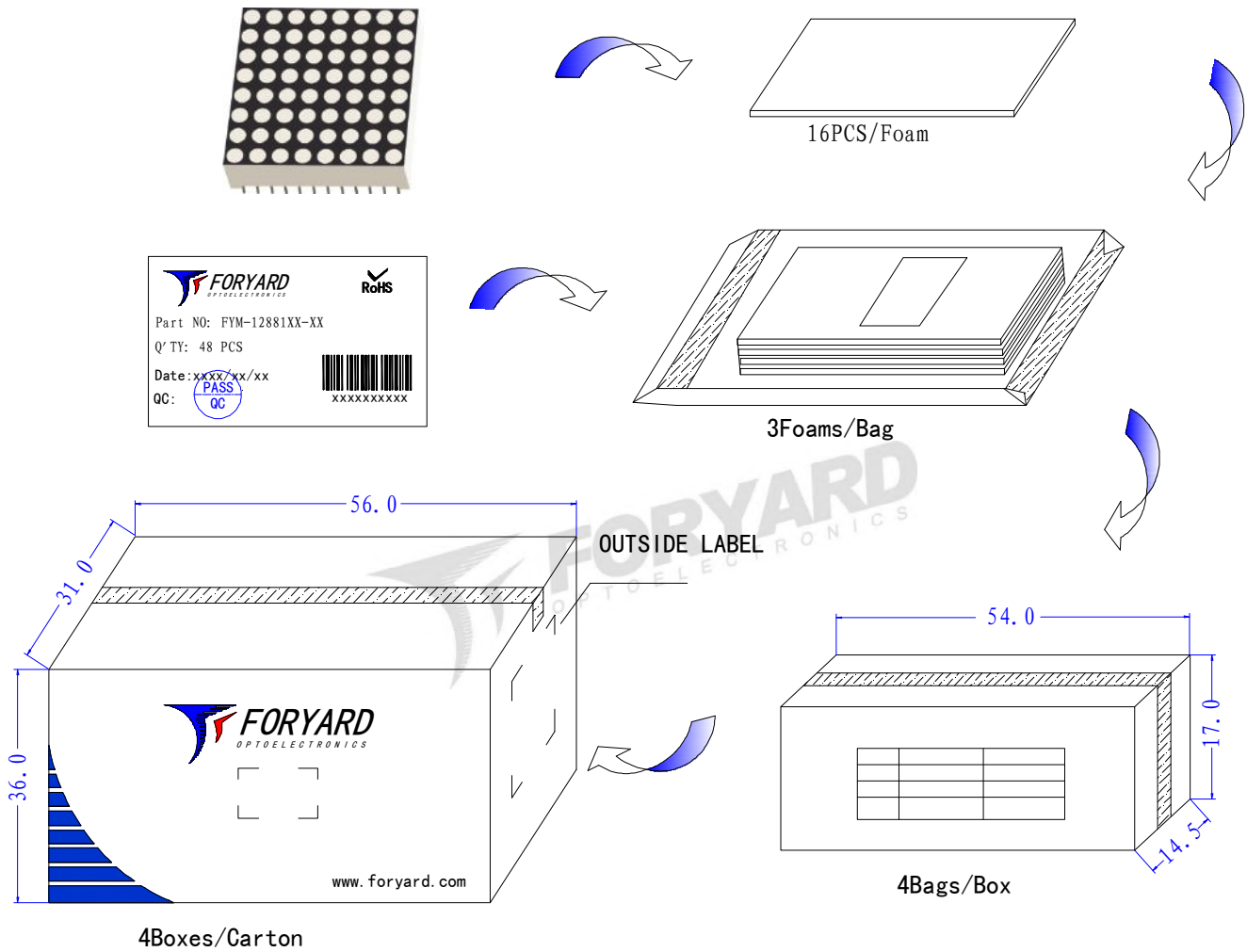
Emitting Color	Dice Material	Peak Wave Length( $\lambda_p$ )	Spectral Line halfwidth( $\Delta\lambda_{1/2}$ )	Forward Voltage(VF) Unit:V		Luminous Intensity (Iv) Unit:mcd	
				Typ	Max		
<b>Standard brightness</b>							
H	Red	GaP	700nm	90nm	2.00	2.50	1
S	Hi Red	AlGaAs/SH	660nm	20nm	1.80	2.50	15~20
D	Super Red	AlGaAs/DH	650nm	20nm	1.90	2.50	26~38
E	Orange	GaAsP	625nm	35nm	1.90	2.50	14~20
A	Amber	GaAsP	610nm	35nm	1.90	2.50	13~18
Y	Yellow	GaAsP	590nm	35nm	1.90	2.50	13~18
G	Green	GaP	570nm	10nm	1.90	2.50	14~18
B	Blue	InGaN	430nm	60nm	3.40	4.40	0.7~1(mw)
			460nm		2.80	3.80	6~12(mw)
			470nm		2.80	3.80	6~12(mw)
PG	Pure Green	InGaN	520nm	36nm	2.80	3.80	4~6(mw)
W	White	InGaN	X=0.29,Y=0.30	CCT:9500K	2.80	3.80	20~30
<b>Ultra brightness</b>							
UHR	Ultra Hi Red	AlGaInP	640nm	20nm	1.90	2.50	30~60
UR	Ultra Red	AlGaInP	635nm	20nm	1.90	2.50	60~100
UE	Ultra Orange	AlGaInP	625nm	20nm	1.90	2.50	60~120
UA	Ultra Amber	AlGaInP	610nm	20nm	1.90	2.50	40~100~150
UY	Ultra Yellow	AlGaInP	590nm	20nm	1.90	2.50	50~140~190
UG	Ultra Green	AlGaInP	570nm	30nm	1.90	2.50	30~60~80
PG	Ultra Pure Green	InGaN	520nm	36nm	2.80	3.80	260~310
BG	Ultra Bluish Green	InGaN	505nm	36nm	2.80	3.80	260~310
UB	Ultra Blue	InGaN	460nm	30nm	2.80	3.80	80~90~120
			470nm	30nm	2.80	3.80	80~90~120
UW	Ultra White	InGaN	X=0.29,Y=0.30	CCT:9500K	2.80	3.80	180~200
Dot-to-Dot 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

Model No.: FYM-12881E/FXX-XX

■ Packing Diagram




**FORYARD**  
OPTOELECTRONICS

**LED**  
PN: FYM-12881XX-XX  
Qty: 1024 PCS  
Date: xxxx/xx/xx  
GW: 23KG      QC: **PASS QC**  
NW: 25KG

**RoHS**      **ATTENTION**

XXXXXXXXXX

OUTSIDE LABEL