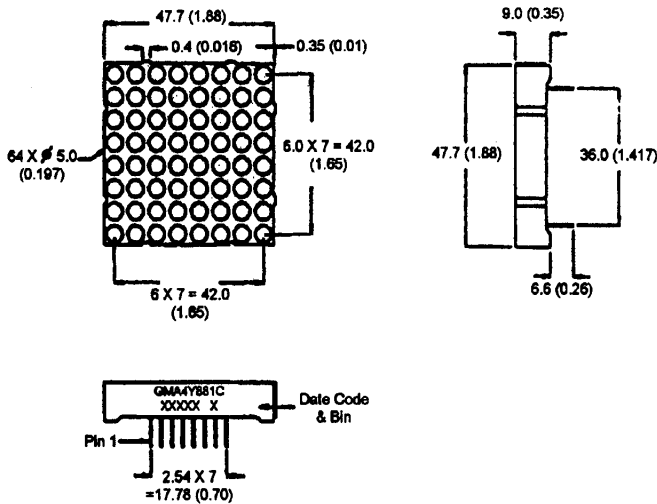


# 1.88 INCH (47.7)mm 8 X 8 DOT MATRIX STICK DISPLAY

## Superbright Yellow GMA4Y881C

### PACKAGE DIMENSIONS



### DESCRIPTION

The GMA4Y881C is a 8 X 8 populated with super bright AllnGaP yellow LEDs. It has a grey face with neutral diffused segment color.

### FEATURES

- 1.88" ( 47.7mm) character height.
- Low power requirement.
- Wide 130° viewing angle.
- High brightness and contrast
- 8 X 8 array with X-Y select.
- X-Y stackable.
- Easy mounting on P.C. board.

**NOTE:** Dimensions are in mm (inch).  
Tolerances are  $\pm 0.25$  (0.1) unless otherwise noted.  
All pins are 0.5 (.02).

### MODEL NUMBER

<u>Part Number</u>	<u>Colour</u>	<u>Description</u>
GMA4Y881C	Superbright Yellow	Common anode row.
(For other color options, contact your local area Sales Office)		



# 1.88 INCH (47.7)mm) 8 X 8 DOT MATRIX STICK DISPLAY

## ABSOLUTE MAXIMUM RATING ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

	Superbright Yellow	Units
Peak forward current per segment (Duty cycle 1/10, 10KHz)	90	mA
Continuous IF per segment	25	mA
Power dissipation per segment	70*	mW
*Derate linearly from 25°C	0.33	mW/°C
Reverse voltage VR per segment	5	Volts
Operating and storage temperature range.....	-25°C to +85°C	
Soldering time at 260°C..... (1/16" below seating plane)	3 sec	

## ELECTRO - OPTICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

	Superbright Yellow	Test Condition
Luminous Intensity/Dot Digit average (Typical)	5000ucd	$I_F = 20\text{mA}$
Forward voltage ( $V_F$ ) typical	2.1V	$I_F = 20\text{ mA}$
maximum	2.8V	$I_F = 20\text{ mA}$
Peak wavelength (nm)	592nm	$I_F = 20\text{ mA}$
Spectral line half width (nm)	17nm	$I_F = 20\text{mA}$
Reverse breakdown voltage $V_R$	5V	$I_R = 100\mu\text{A}$

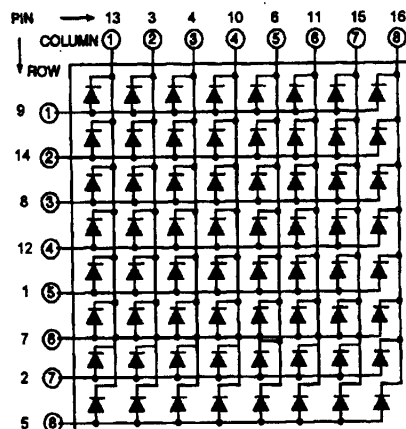


# 1.88 INCH (47.7)mm 8 X 8 DOT MATRIX STICK DISPLAY

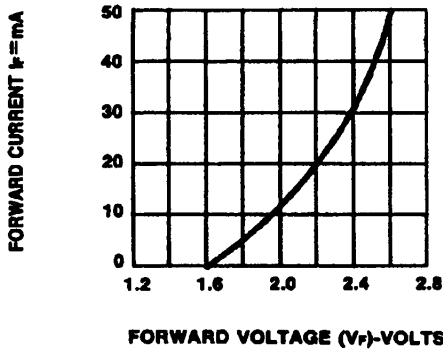
## PIN CONNECTION: GMA4Y881C

Pin Number	Function	Pin Number	Function
1	Anode Row 5	13	Cathode Column 1
2	Anode Row 7	14	Anode Row 2
3	Cathode Column 2	15	Cathode Column 7
4	Cathode Column 3	16	Cathode Column 8
5	Anode Row 8		
6	Cathode Column 5		
7	Anode Row 6		
8	Anode Row 3		
9	Anode Row 1		
10	Cathode Column 4		
11	Cathode Column 6		
12	Anode Row 4		

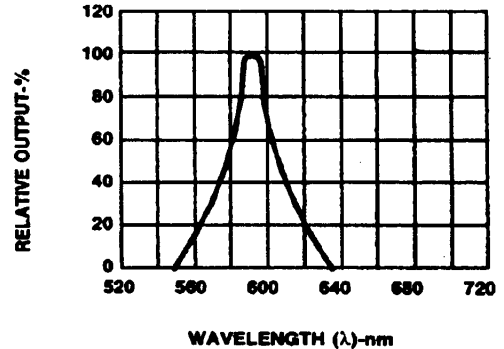
## SCHEMATIC: GMA4Y881C



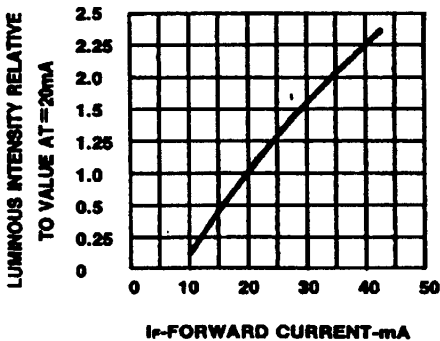
**GRAPHICAL DETAIL: Superbright Yellow** ( $T_A = 25^\circ\text{C}$  unless otherwise specified)



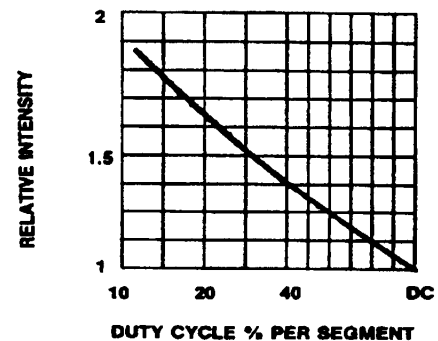
**Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.**



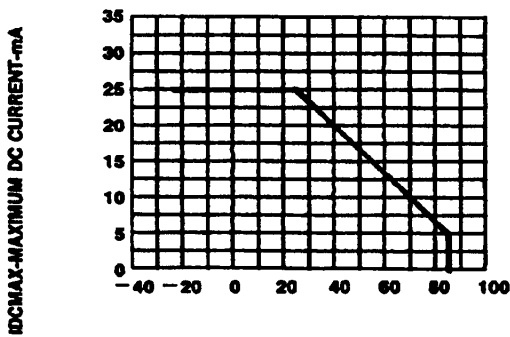
**Fig.2 SPECTRAL RESPONSE**



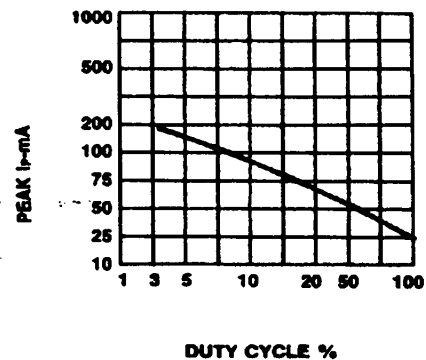
**Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT**



**Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE**



**Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE.**



**Fig. 6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE  $f=1$  KHz)**