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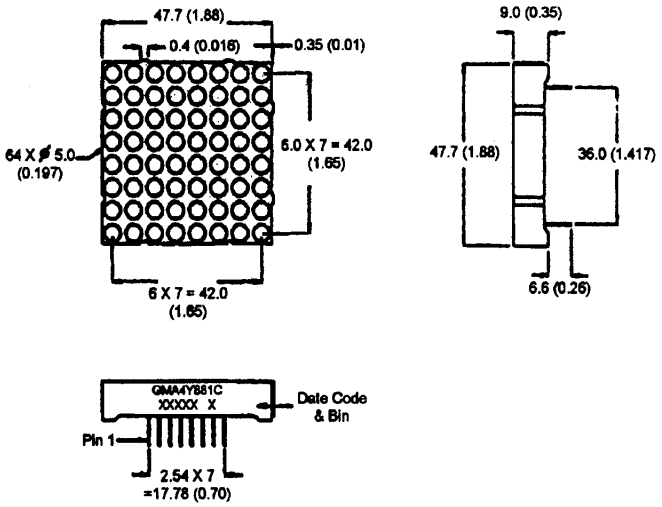
FAIRCHILD
SEMICONDUCTOR™

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

Superbright Yellow GMA4Y881C

PACKAGE DIMENSIONS



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

DESCRIPTION

The GMA4Y881C is a 8 X 8 populated with super bright AlInGaP 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.

MODEL NUMBER

Part Number	Colour	Description
GMA4Y881C	Superbright Yellow	Common anode row.

(For other color options, contact your local area Sales Office)

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ABSOLUTE MAXIMUM RATING (T_A = 25°C unless otherwise specified)

	Superbright Yellow	Units
Peak forward current per segment (Duty cycle 1/10, 10KHz)	90	mA
Continous 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.....3 sec
(1/16" below seating plane)

ELECTRO - OPTICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

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

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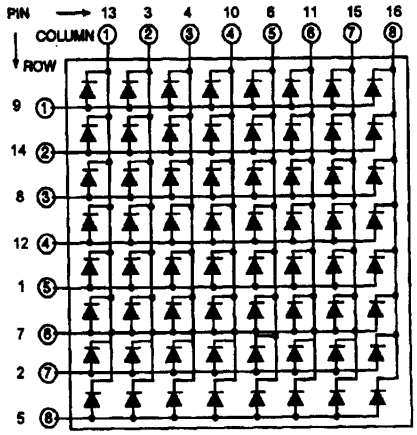
PIN CONNECTION: GMA4Y881C

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



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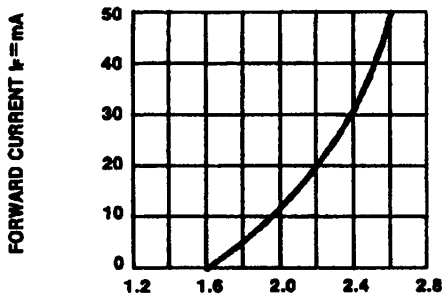
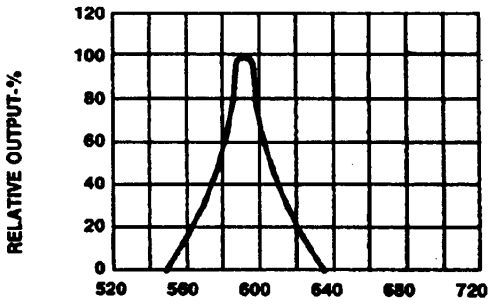
1.88 INCH (47.7)mm) 8 X 8 DOT MATRIX STICK DISPLAY

GRAPHICAL DETAIL: Superbright Yellow (T_A = 25°C unless otherwise specified)



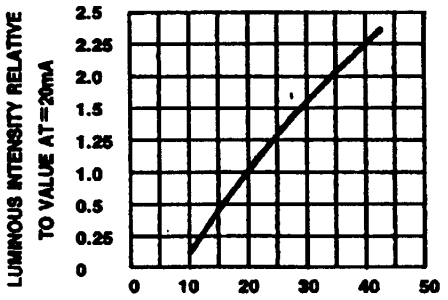
FORWARD VOLTAGE (V_F)-VOLTS

Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.



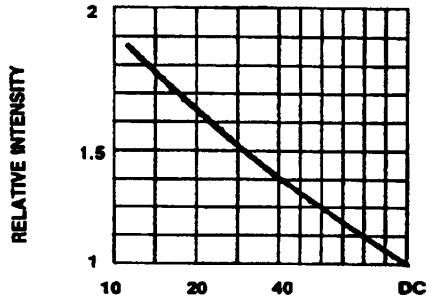
WAVELENGTH (λ)-nm

Fig.2 SPECTRAL RESPONSE



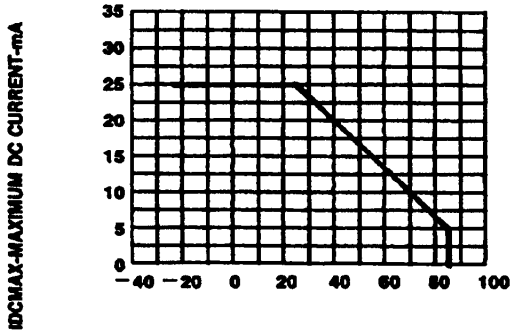
I_F-FORWARD CURRENT-mA

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



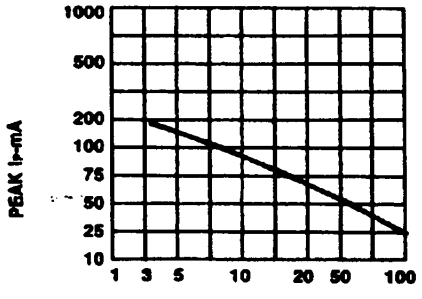
DUTY CYCLE % PER SEGMENT (AVERAGE I_F=10mA)

Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE



T_A MBIENT TEMPERATURE ℃

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



DUTY CYCLE %

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

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