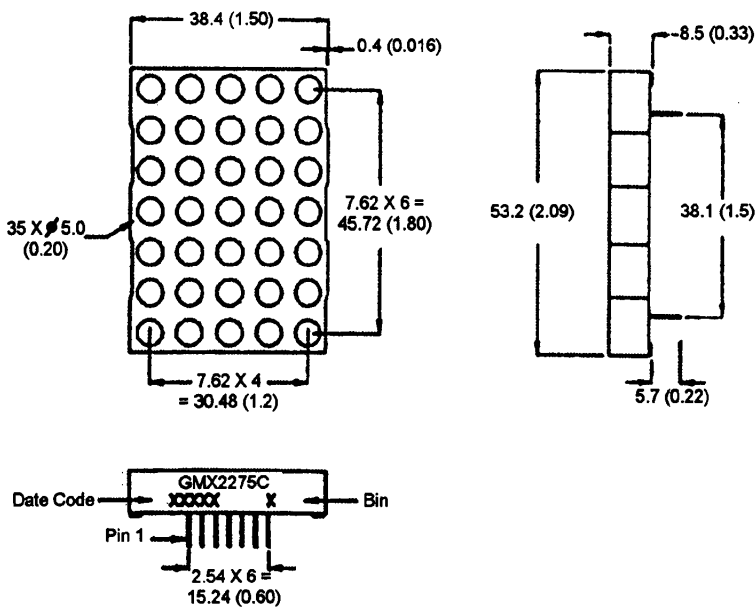


### 2.0 INCH (50.8 mm) 5 X 7 DOT MATRIX STICK DISPLAY

**AlGaAs Red GMA2275C**  
**AlGaAs Red GMC2275C**

#### PACKAGE DIMENSIONS



#### DESCRIPTION

The GMX2275C 5 X 7, Single Hetero Junction AlGaAs Red dotmatrix display. It has a grey face with neutral segment color.

#### FEATURES

- 2.0" ( 50.8mm) character height.
- Low power requirement.
- Wide 130° viewing angle.
- High brightness and contrast
- 5 X 7 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>
GMA2275C	AlGaAs Red	Common anode row.
GMC2275C	AlGaAs Red	Common Cathode row.

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

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

	<b>AlGaAs Red</b>	<b>Units</b>
Peak forward current per segment (Duty cycle 1/10, 10KHz)	<b>200</b>	<b>mA</b>
Continous IF per segment	<b>30</b>	<b>mA</b>
Power dissipation per segment	<b>100*</b>	<b>mW</b>
*Derate linearly from 25°C	<b>0.5</b>	<b>mW/°C</b>
Reverse voltage VR per segments	<b>5</b>	<b>Volts</b>
Operating and storage temperature range.....	<b>-25°C to +85°C</b>	
Soldering time at 260°C..... (1/16" below seating plane)	<b>3 sec</b>	

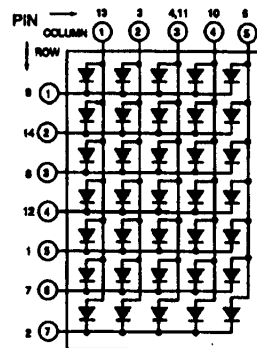
**ELECTRO - OPTICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise specified)

	<b>AlGaAs Red</b>	<b>Test Condition</b>
Luminous Intensity/Dot Digit average (Typical)	<b>5000ucd</b>	<b>I<sub>F</sub> = 20mA</b>
Forward voltage (V <sub>F</sub> ) typical	<b>1.8V</b>	<b>I<sub>F</sub> = 20 mA</b>
maximum	<b>2.5V</b>	<b>I<sub>F</sub> = 20 mA</b>
Peak wavelength (nm)	<b>660nm</b>	<b>I<sub>F</sub> = 20 mA</b>
Spectral line half width (nm)	<b>20nm</b>	<b>I<sub>F</sub> = 20mA</b>
Reverse breakdown voltage V <sub>R</sub>	<b>5V</b>	<b>I<sub>R</sub> = 100uA</b>

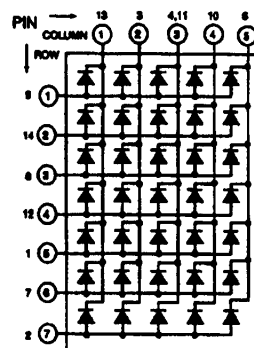
**PIN CONNECTION:**

<b>GMA2275C</b>		<b>GMC2275C</b>	
Pin Number	Function	Pin Number	Function
1	Anode Row 5	1	Cathode Row 5
2	Anode Row 7	2	Cathode Row 7
3	Cathode Column 2	3	Anode Column 2
4	Cathode Column 3	4	Anode Column 3
5	Anode Row 4	5	Cathode Row 4
6	Cathode Column 5	6	Anode Column 5
7	Anode Row 6	7	Cathode Row 6
8	Anode Row 3	8	Cathode Row 3
9	Anode Row 1	9	Cathode Row 1
10	Cathode Column 4	10	Anode Column 4
11	Cathode Column 3	11	Anode Column 3
12	Anode Row 4	12	Cathode Row 4
13	Cathode Column 1	13	Anode Column 1
14	Anode Row 2	14	Cathode Row 2

**SCHEMATIC:**



GMC2X75C



GMA2X75C

### GRAPHICAL DETAIL: AlGaAs Red ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

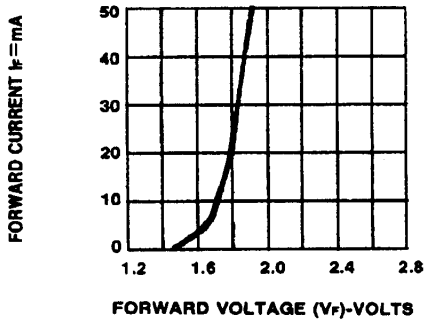


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

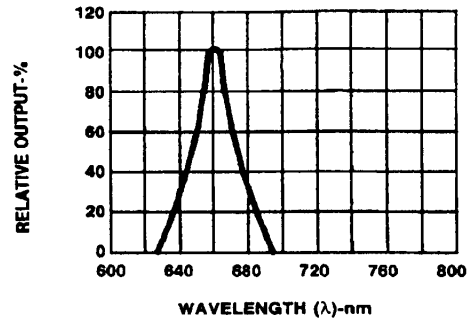


Fig.2 SPECTRAL RESPONSE

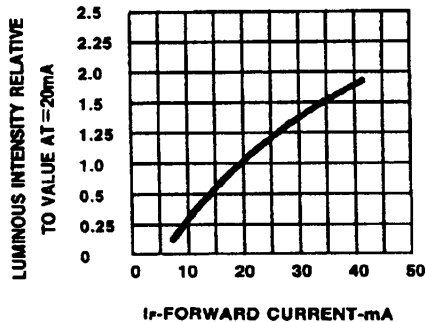


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

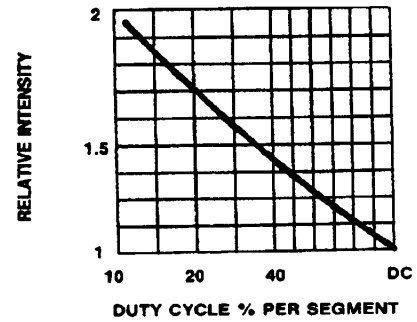


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE (AVERAGE  $I_f = 10\text{mA}$ )

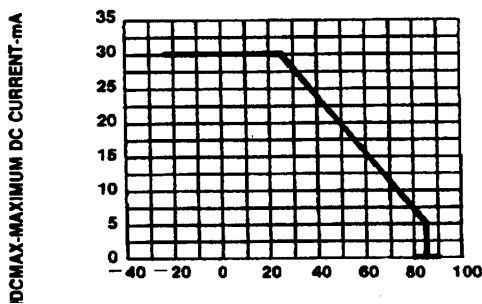


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE.

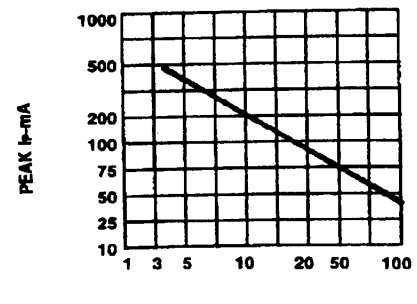


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE  $f = 1\text{ KHz}$ )

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