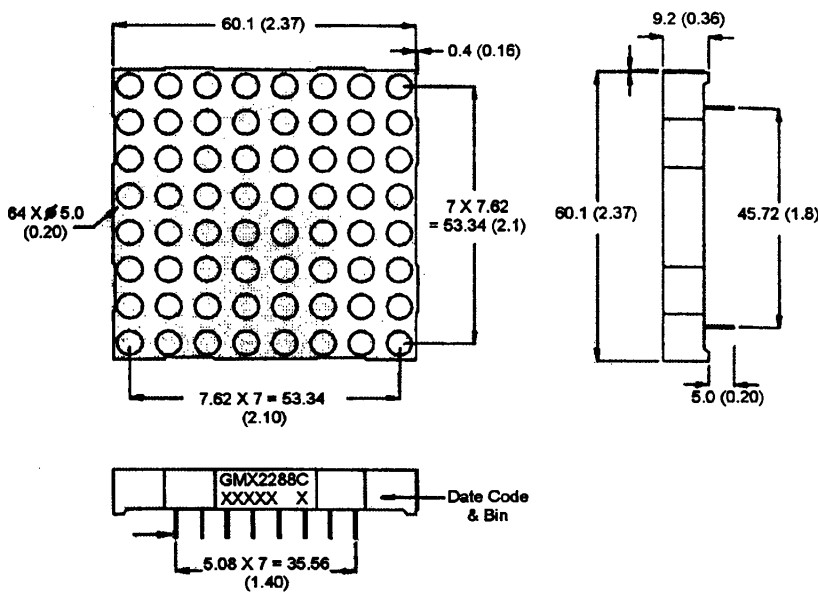


**AIGaAs Red GMA2288C  
AIGaAs Red GMC2288C**

**PACKAGE DIMENSIONS**



**DESCRIPTION**

The GMX2288C 8 X 8, Single Hetero Junction AIGaAs Red dot matrix display. It has a grey face with neutral segment color.

**FEATURES**

- 2.3" ( 58.4mm) 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 ± 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>
GMA2288C	AIGaAs Red	Common anode row.
GMC2288C	AIGaAs 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>
Continuous 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>	

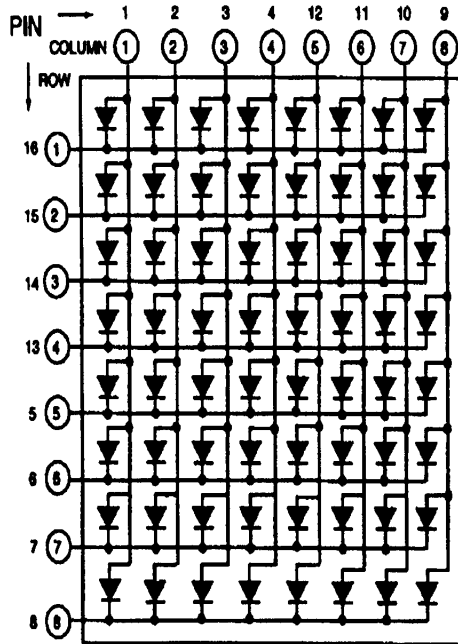
**ELECTRO - OPTICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise specified)

	<b>AlGaAs Red</b>	<b>Test Condition</b>
Luminous Intensity/Dot Digit average (Typical)	<b>5000ucd</b>	<b><math>I_F = 20\text{mA}</math></b>
Forward voltage ( $V_F$ ) typical	<b>1.8V</b>	<b><math>I_F = 20\text{ mA}</math></b>
maximum	<b>2.5V</b>	<b><math>I_F = 20\text{ mA}</math></b>
Peak wavelength (nm)	<b>660nm</b>	<b><math>I_F = 20\text{ mA}</math></b>
Spectral line half width (nm)	<b>20nm</b>	<b><math>I_F = 20\text{mA}</math></b>
Reverse breakdown voltage $V_R$	<b>5V</b>	<b><math>I_R = 100\text{uA}</math></b>

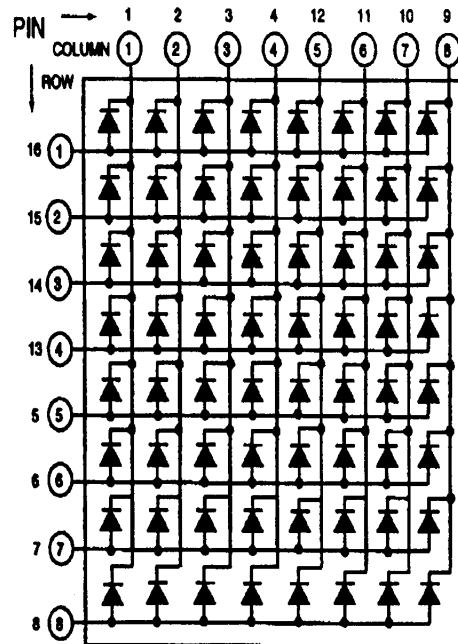
**PIN CONNECTION:**

<b>GMA2288C</b>		<b>GMC2288C</b>	
<b>Pin Number</b>	<b>Function</b>	<b>Pin Number</b>	<b>Function</b>
1	Cathode Column 1	1	Anode Column 1
2	Cathode Column 2	2	Anode Column 2
3	Cathode Column 3	3	Anode Column 3
4	Cathode Column 4	4	Anode Column 4
5	Anode Row 5	5	Cathode Row 5
6	Anode Row 6	6	Cathode Row 6
7	Anode Row 7	7	Cathode Row 7
8	Anode Row 8	8	Cathode Row 8
9	Cathode Column 8	9	Cathode Column 8
10	Cathode Column 7	10	Cathode Column 7
11	Cathode Column 6	11	Cathode Column 6
12	Cathode Column 5	12	Cathode Column 5
13	Anode Row 4	13	Anode Row 4
14	Anode Row 3	14	Anode Row 3
15	Anode Row 2	15	Anode Row 2
16	Anode Row 1	16	Anode Row 1

**SCHEMATIC:**

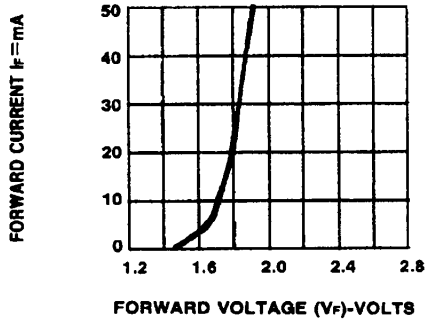


GMC2X88C

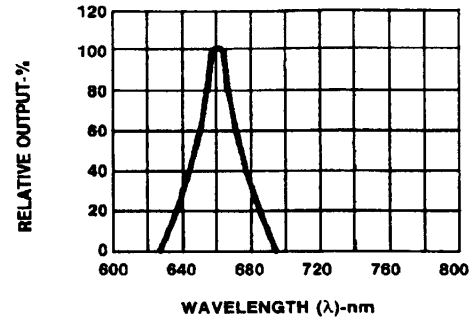


GMA2X88C

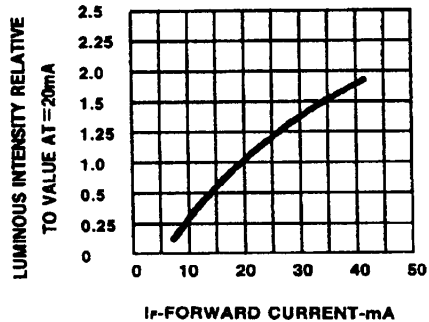
**GRAPHICAL DETAIL: AlGaAs Red ( $T_A = 25^\circ\text{C}$  unless otherwise specified)**



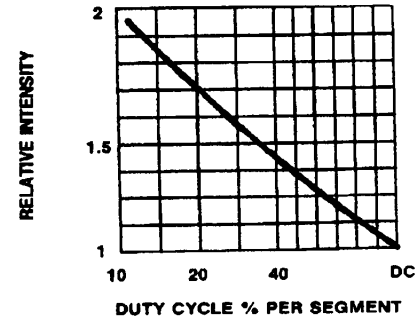
**Fig. 1 FORWARD CURRENT VS. FORWARD VOLTAGE.**



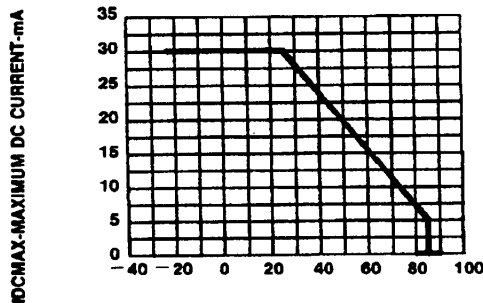
**Fig. 2 SPECTRAL RESPONSE**



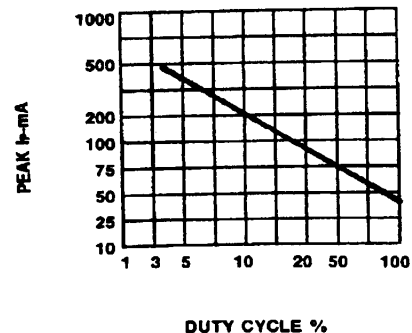
**Fig. 3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT**



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



**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)**

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.