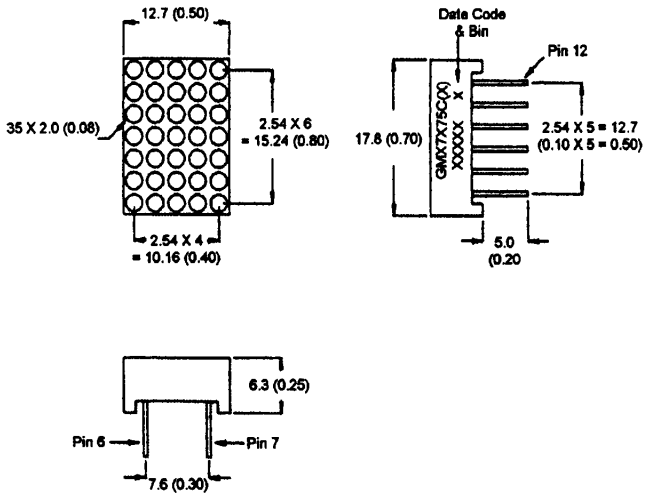
FAIRCHILD
SEMICONDUCTOR™

0.7 INCH (17.2mm) 5 X 7 DOT MATRIX STICK DISPLAY

Superbright Red GMX7275C
Superbright Red GMX7275CA

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 GMX7275C(X) a 5 X 7, Superbright red dotmatrix display. Populated with GaAlAs/GaAs Single Hetero Junction LEDs, it has a grey face with white segment color.

FEATURES

0.7" (17.2mm) 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.

MODEL NUMBERS

Part Number	Colour	Description
GMA7275C	AlGaAs Red	Common anode row.
GMA7275CA	AlGaAs Red	Common anode row, alternate pin-out.
GMC7275C	AlGaAs Red	Common cathode row.
GMC7275CA	AlGaAs Red	Common cathode row, alternate pin-out.

(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 Red	Units
Peak forward current per segment (Duty cycle 1/10, 10KHz)	200	mA
Continous IF per segment	30	mA
Power dissipation per segment	100*	mW
*Derate linearly from 25°C	0.5	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 Red	Test Condition
Luminous Intensity/Dot Digit average (Typical)	5000ucd	I_F = 20 mA
Forward voltage (V_F)		
typical	1.8V	I_F = 20 mA
maximum	2.5V	I_F = 20 mA
Peak wavelength (nm)	660nm	I_F = 20 mA
Spectral line half width (nm)	20nm	I_F = 20mA
Reverse breakdown voltage V_R	5V	I_R = 100uA

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PIN CONNECTION:

GMX7X75C

GMA7X75C		GMC7X75C	
Pin Number	Function	Pin Number	Function
1	Anode Row 1	1	Cathode Row 1
2	Anode Row 2	2	Cathode Row 2
3	Cathode Column 2	3	Anode Column2
4	Cathode Column 1	4	Anode Column 1
5	Anode Row 6	5	Cathode Row 6
6	Anode Row 7	6	Cathgode Row 7
7	Cathode Column 3	7	Anode Column 3
8	Anode Row 5	8	Cathode Row 5
9	Cathode Column 4	9	Anode Column 4
10	Anode Row 4	10	Cathode Row 4
11	Anode Row 3	11	Cathode Row 3
12	Cathode Column 5	12	Anode Column 5

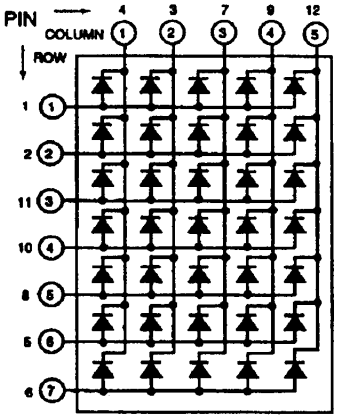
GMX7X75CA

GMC7X75CA		GMA7X75CA	
Pin Number	Function	Pin Number	Function
1	Anode Column 1	1	Cathode Column 1
2	Cathode Row 3	2	Anode Row 3
3	Anode Column 2	3	Cathode Column 2
4	Cathode Row 5	4	Anode Row 5
5	Cathode Row 6	5	Anode Row 6
6	Cathode Row 7	6	Anode Row 7
7	Anode Column 4	7	Cathode Column 3
8	Anode Column 5	8	Cathode Column 5
9	Cathode Row 4	9	Anode Row 4
10	Anode Column 3	10	Cathode Column 3
11	Cathode Row 2	11	Anode Row 2
12	Cathode Row 1	12	Anode Row 1

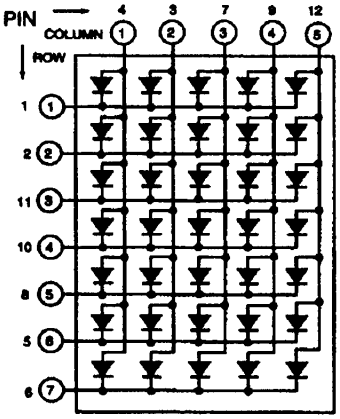
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0.7 INCH (17.2mm) 5 X 7 DOT MATRIX STICK DISPLAY

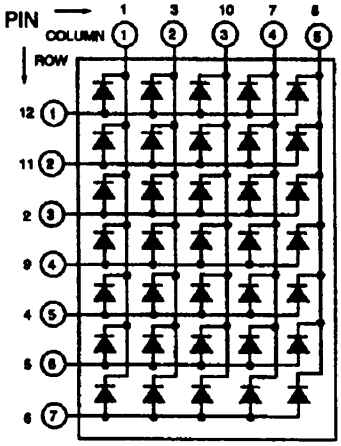
SCHEMATICS:



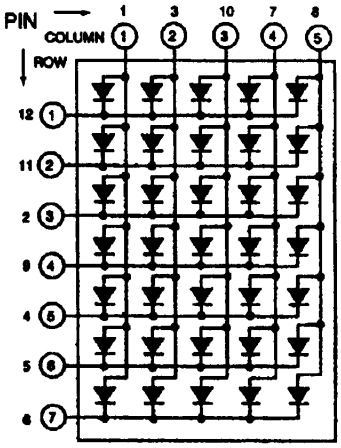
GMA7X75C



GMC7X75C



GMA7X75CA

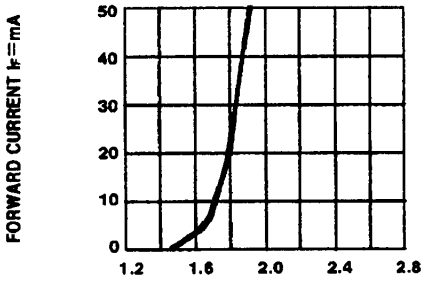


GMC7X75CA

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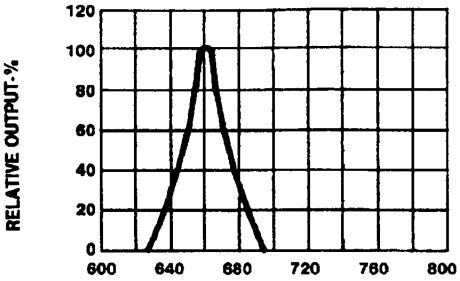
0.7 INCH (17.2mm) 5 X 7 DOT MATRIX STICK DISPLAY

GRAPHICAL DETAIL: AlGaAs Red (T_A = 25°C unless otherwise specified)



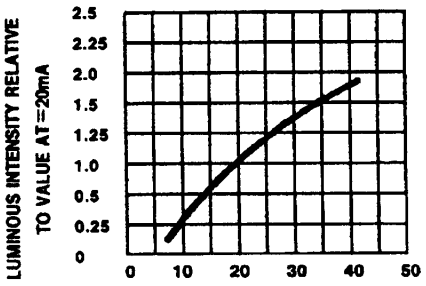
FORWARD VOLTAGE (V_F)-VOLTS

Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.



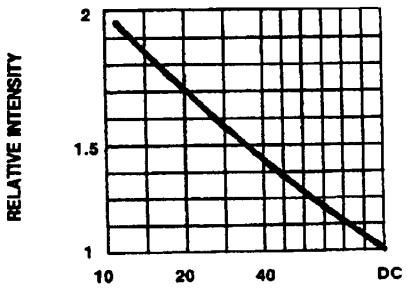
WAVELENGTH (λ)-nm

Fig.2 SPECTRAL RESPONSE



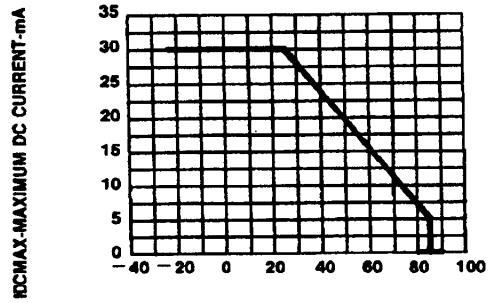
I_F-FORWARD CURRENT-mA

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



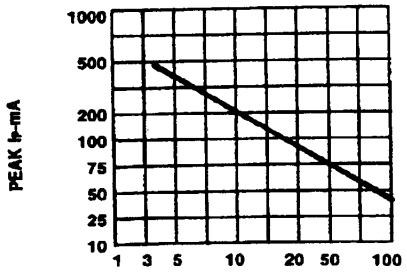
DUTY CYCLE % PER SEGMENT (AVERAGE I_F=10mA)

Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE



T_A AMBIENT TEMPERATURE °C

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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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.

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