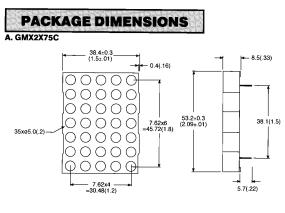
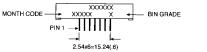


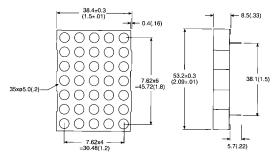
#### 2.0" 5 × 7 **DOT MATRIX DISPLAYS**

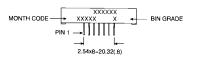
#### YELLOW GMA 2875C GMC 2875C HER GMA 2975C GMC 2975C GREEN GMA 2475C GMC 2475C BICOLOR RED/GREEN GMA 2675C





B. GMA2675C





ST2640

ST2639

NOTES:

- 1. ALL PINS ARE 00.5 (.02).
- DIMENSIONS IN MILLIMETERS (INCH), TOLERANCE IS ±0.25 (.01) UNLESS OTHERWISE NOTED.

#### DESCRIPTION

These are 5×7 dot matrix displays with large emitting area (0.2" diameter) LED sources. The GMX2X75C series are single color displays with the exception of GMA2675C which is a bicolor of red/green displays.

All displays have gray face and white dot color. Other face or dot colors are available with minimum requirement.

The X in GMX denotes row anode or row cathode.

#### **FEATURES**

- 2.0" (50.7 mm) character height
- Low power requirement
- High contrast & brightness
- Wide viewing angle 130°
- 5 × 7 array with X-Y select
- Compatible with USASCII and EBCDIC codes
- X-Y stackable
- Choice of two matrix orientation anode or cathode column
- Easy mounting on PCB
- Categorized for luminous intensity
- Single color displays have the choice of 3 bright colors - yellow/orange/green
- Multicolor color displays are applicable to 3 bright colors - greens, orange (HER) and yellow (green and HER mixed)

## FAIRCHILD

SEMICONDUCTOR

### $\textbf{2.0'' 5 \times 7} \\ \textbf{DOT MATRIX DISPLAYS} \\$

ABSOLUTE MAXIMUM RATING (T<sub>A</sub> = 25°C unless otherwise specified) PARAMETER YELLOW HER GREEN UNITS Power dissipation per dot/color ..... 60 70 75 mW Peak forward current per dot/color (duty cycle 1/10, 10KHz) ..... 80 100 100 mΑ Continuous I<sub>F</sub> per dot/color ..... 20 25 25 mA Reverse voltage V<sub>R</sub> per dot/color ..... 5 5 5 v 

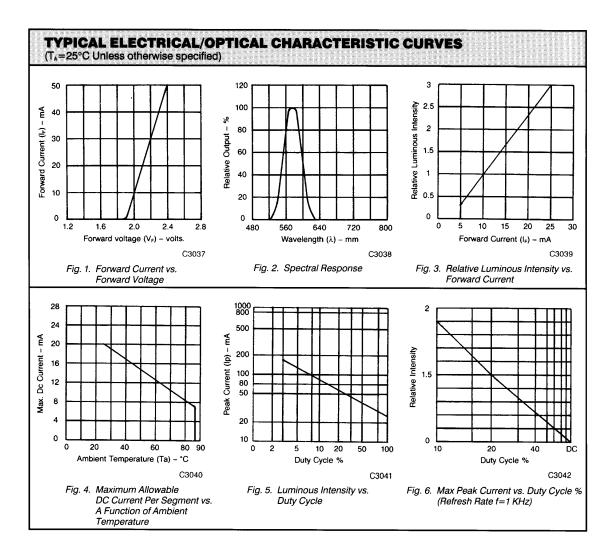
# MODEL NUMBERS PART NO. INTERNAL YELLOW HER GREEN COLOR DESCRIPTION PACKAGE CIRCUIT JUAGRAM COLOR DESCRIPTION DIMENSION DIAGRAM

YELLOW	HER	GREEN	COLOR	DESCRIPTION	DIMENSION	DIAGRAM
GMC2875C	GMC2975C	GMC2475C		Anode column, cathode row	А	А
GMA2875C	GMA2975C	GMA2475C		Cathode column, anode row	Α	В
			GMA2675C	Cathode column, anode row	В	С



## $\begin{array}{c} \textbf{2.0}^{\prime\prime} \text{ 5} \times \textbf{7} \\ \textbf{DOT MATRIX DISPLAYS} \end{array}$

ELECTRICAL/OPTICAL CH GMX 2875C	IARACTERISTIC	<b>S</b> (T <sub>A</sub> = 25	°C Unless	otherwise s	pecified)
PARAMETER	MIN.	ТҮР.	MAX.	UNITS	TEST CONDITIONS
Average luminous intensity		3000		μcd	l <sub>F</sub> =20 mA
Peak emission wavelength		585		nm	I <sub>F</sub> =20 mA
Spectral line half-width		30		nm	I <sub>F</sub> =20 mA
Forward voltage, any dot		2.1	2.8	V	I <sub>F</sub> =20 mA
Reverse voltage, any dot			100	μA	V <sub>B</sub> =5 V

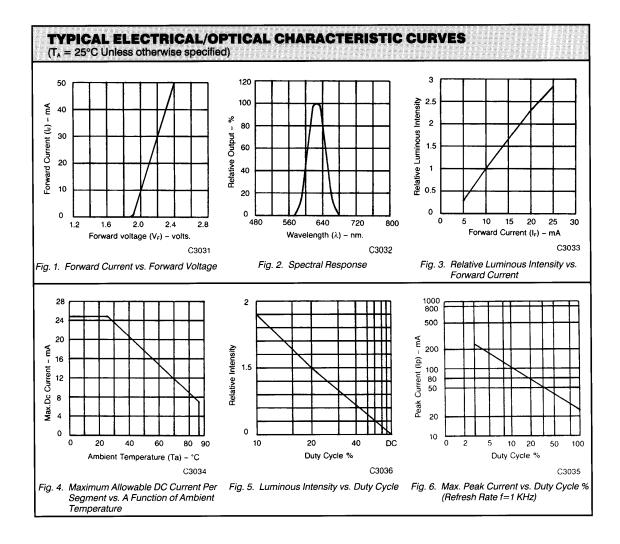




SEMICONDUCTOR

## $2.0^{\prime\prime}$ 5 imes 7 DOT MATRIX DISPLAYS

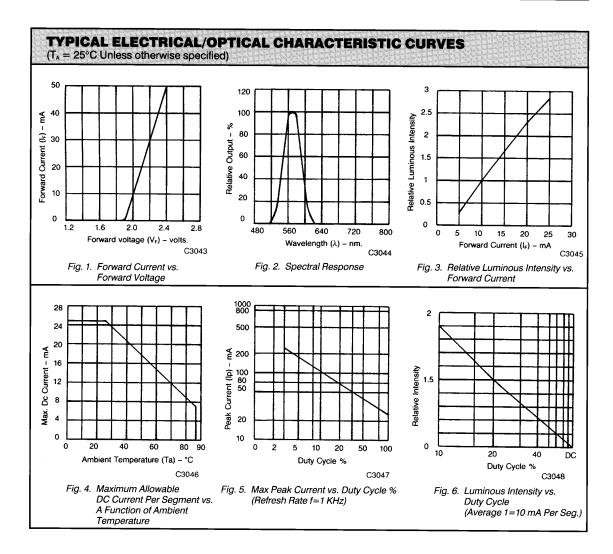
ELECTRICAL/OPTICAL CH GMX 2975C	IARACTERISTIC	<b>S</b> (T <sub>A</sub> = 25'	°C Unless	otherwise s	pecified)
PARAMETER	MiN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Average luminous intensity		3000		μcd	I <sub>F</sub> =20 mA
Peak emission wavelength	A1.00	635		nm	l <sub>F</sub> =20 mA
Spectral line half-width		30		nm	I <sub>F</sub> =20 mA
Forward voltage, any dot	, da / 40	2.1	2.8	V	I <sub>F</sub> =20 mA
Reverse voltage, any dot			100	μA	V <sub>B</sub> =5 V





### $\begin{array}{c} \textbf{2.0}^{\prime\prime} \ \textbf{5} \times \textbf{7} \\ \textbf{DOT MATRIX DISPLAYS} \end{array}$

ELECTRICAL/OPTICAL CH GMX 2475C	ARACTERISTIC	<b>S</b> (T <sub>4</sub> = 25	°C Unless	otherwise s	pecified)
PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Average luminous intensity		3000		μcd	I <sub>F</sub> =20 mA
Peak emission wavelength	3	565		nm	I <sub>F</sub> =20 mA
Spectral line half-width		30		nm	I <sub>F</sub> =20 mA
Forward voltage, any dot		2.1	2.8	V	I <sub>F</sub> =20 mA
Reverse voltage, any dot			100	μA	V <sub>R</sub> =5 V



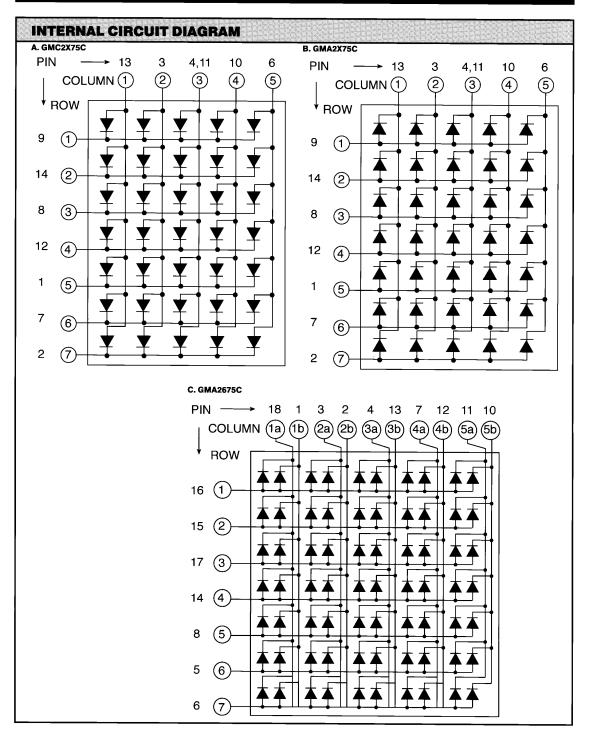


## $\textbf{2.0'' 5 \times 7} \\ \textbf{DOT MATRIX DISPLAYS} \\$

PIN NO.	GMC2X75C	GMA2X75C	GMA2675C
1	Cathode row 5	Anode row 5	Cathode column 1 green
2	Cathode row 7	Anode row 7	Cathode column 2 green
3	Anode column 2	Cathode column 2	Cathode column 2 HER
4	Anode column 3	Cathode column 3	Cathode column 3 HER
5	Cathode row 4	Anode row 4	Anode row 6
6	Anode column 5	Cathode column 5	Anode row 7
7	Cathode row 6	Anode row 6	Cathode column 4 HER
8	Cathode row 3	Anode row 3	Anode row 5
9	Cathode row 1	Anode row 1	No connection
10	Anode column 4	Cathode column 4	Cathode column 5 green
11	Anode column 3	Cathode column 3	Cathode column 5 HER
12	Cathode row 4	Anode row 4	Cathode column 4 green
13	Anode column 1	Cathode column 1	Anode column 3 green
14	Cathode row 2	Anode row 2	Anode row 4
15			Anode row 2
16			Anode row 1
17			Anode row 3
18			Cathode column 1 HER



# $\begin{array}{c} \textbf{2.0'' 5 \times 7} \\ \textbf{DOT MATRIX DISPLAYS} \end{array}$





#### 2.0" 5 X 7 DOT MATRIX DISPLAYS

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- 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.