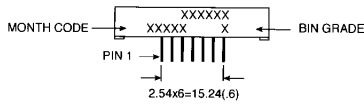
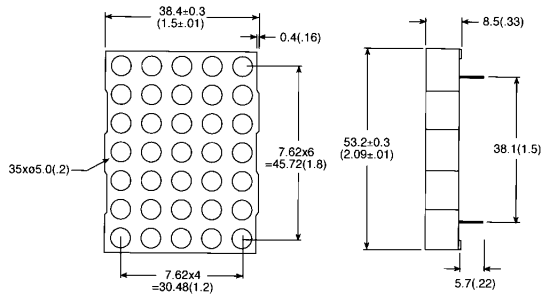


**YELLOW GMA 2875C GMC 2875C  
HER GMA 2975C GMC 2975C  
GREEN GMA 2475C GMC 2475C  
BICOLOR RED/GREEN GMA 2675C**

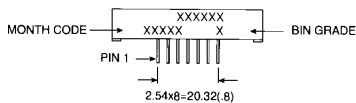
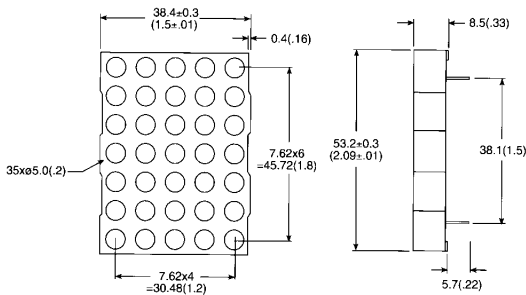
**PACKAGE DIMENSIONS**

**A. GMX2X75C**



**ST2639**

**B. GMA2675C**



**ST2640**

**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)

**NOTES:**

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

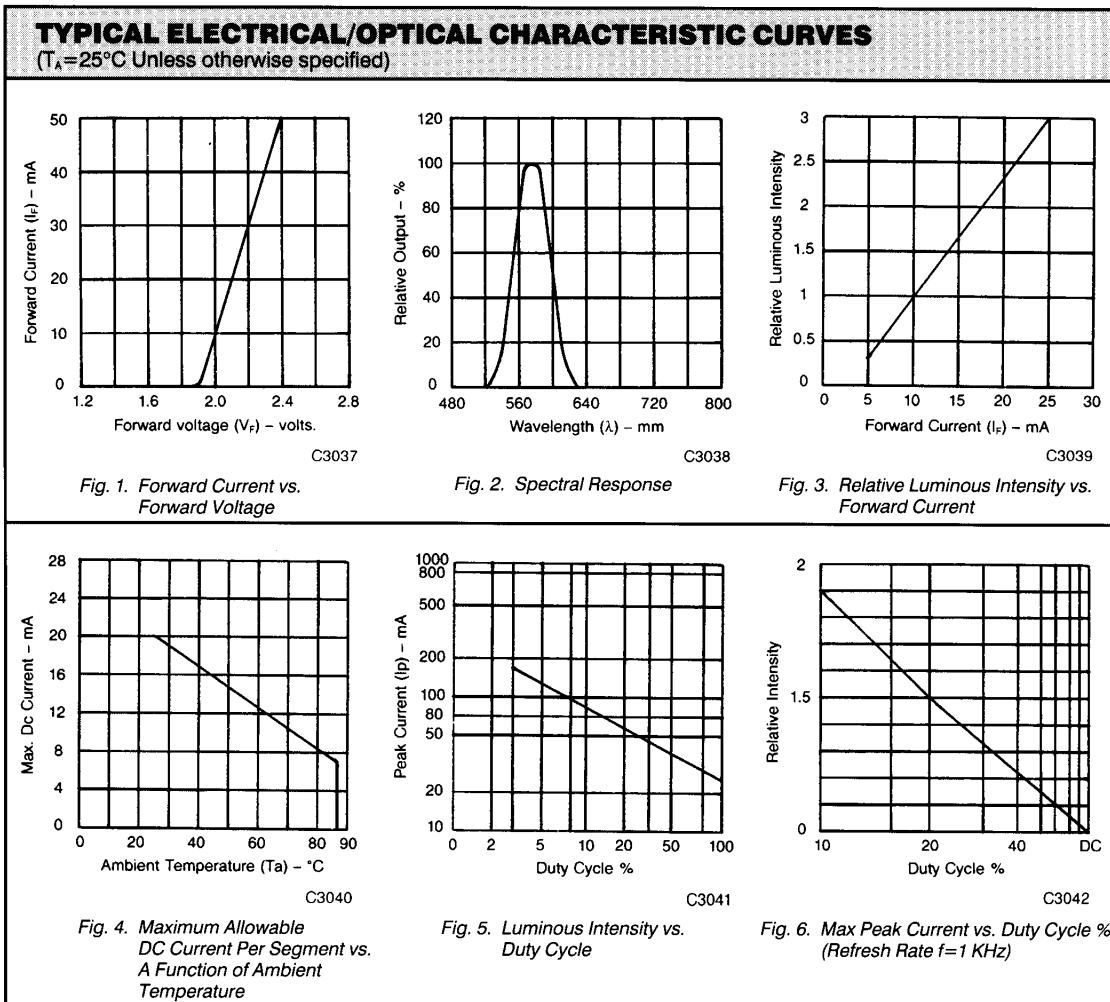


**2.0' 5 × 7  
DOT MATRIX DISPLAYS**

<b>ABSOLUTE MAXIMUM RATING</b> (T <sub>A</sub> = 25°C unless otherwise specified)				
<b>PARAMETER</b>	<b>YELLOW</b>	<b>HER</b>	<b>GREEN</b>	<b>UNITS</b>
Power dissipation per dot/color .....	60	70	75	mW
Peak forward current per dot/color (duty cycle 1/10, 10KHz) .....	80	100	100	mA
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
Operating and storage temperature range .....				-25°C to +85°C
Soldering time at 260°C (1/16 inch below seating plane) .....				3 sec

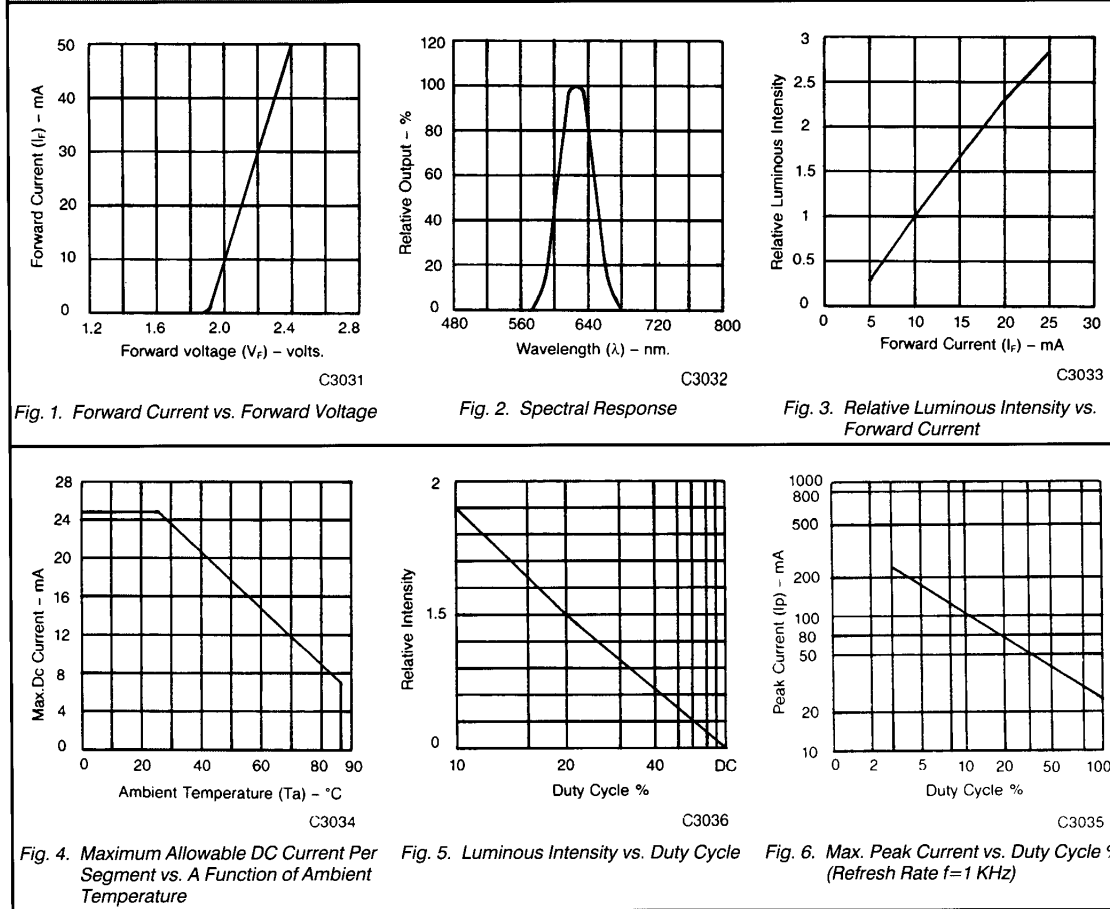
<b>MODEL NUMBERS</b>							
		<b>PART NO.</b>			<b>DESCRIPTION</b>	<b>PACKAGE DIMENSION</b>	<b>INTERNAL CIRCUIT DIAGRAM</b>
<b>YELLOW</b>	<b>HER</b>	<b>GREEN</b>	<b>MULTI-COLOR</b>				
GMC2875C	GMC2975C	GMC2475C			Anode column, cathode row	A	A
GMA2875C	GMA2975C	GMA2475C			Cathode column, anode row	A	B
			GMA2675C		Cathode column, anode row	B	C

<b>ELECTRICAL/OPTICAL CHARACTERISTICS</b> ( $T_A = 25^\circ\text{C}$ Unless otherwise specified)					
<b>GMX 2875C</b>					
PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Average luminous intensity		3000		$\mu\text{cd}$	$I_F = 20\text{ mA}$
Peak emission wavelength		585		nm	$I_F = 20\text{ mA}$
Spectral line half-width		30		nm	$I_F = 20\text{ mA}$
Forward voltage, any dot		2.1	2.8	V	$I_F = 20\text{ mA}$
Reverse voltage, any dot			100	$\mu\text{A}$	$V_R = 5\text{ V}$

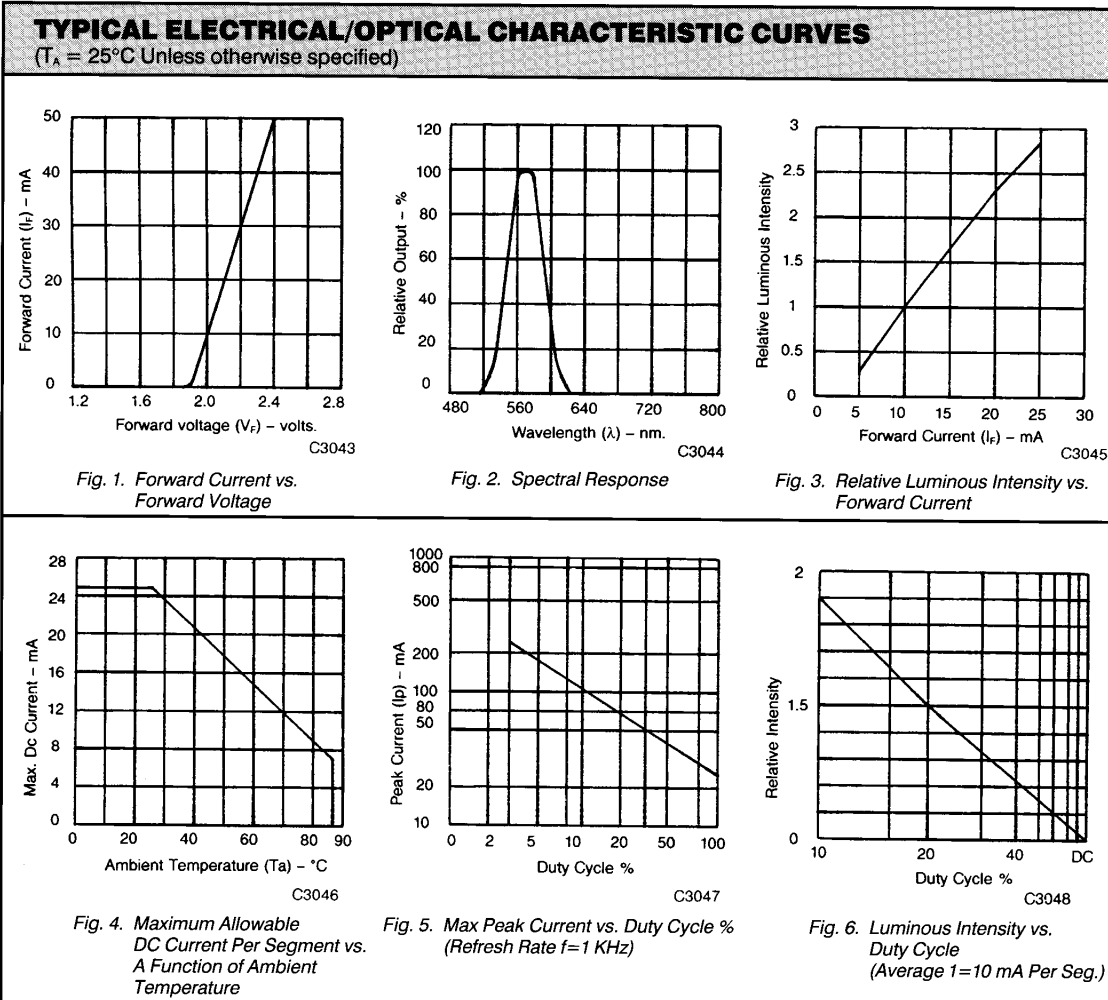


<b>ELECTRICAL/OPTICAL CHARACTERISTICS</b> ( $T_A = 25^\circ\text{C}$ Unless otherwise specified)					
<b>GMX 2975C</b>					
PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Average luminous intensity		3000		$\mu\text{cd}$	$I_F = 20\text{ mA}$
Peak emission wavelength		635		nm	$I_F = 20\text{ mA}$
Spectral line half-width		30		nm	$I_F = 20\text{ mA}$
Forward voltage, any dot		2.1	2.8	V	$I_F = 20\text{ mA}$
Reverse voltage, any dot			100	$\mu\text{A}$	$V_R = 5\text{ V}$

**TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES**  
( $T_A = 25^\circ\text{C}$  Unless otherwise specified)



<b>ELECTRICAL/OPTICAL CHARACTERISTICS</b> ( $T_A = 25^\circ\text{C}$ Unless otherwise specified)					
<b>GMX 2475C</b>					
PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Average luminous intensity		3000		$\mu\text{cd}$	$I_F = 20\text{ mA}$
Peak emission wavelength		565		nm	$I_F = 20\text{ mA}$
Spectral line half-width		30		nm	$I_F = 20\text{ mA}$
Forward voltage, any dot		2.1	2.8	V	$I_F = 20\text{ mA}$
Reverse voltage, any dot			100	$\mu\text{A}$	$V_R = 5\text{ V}$



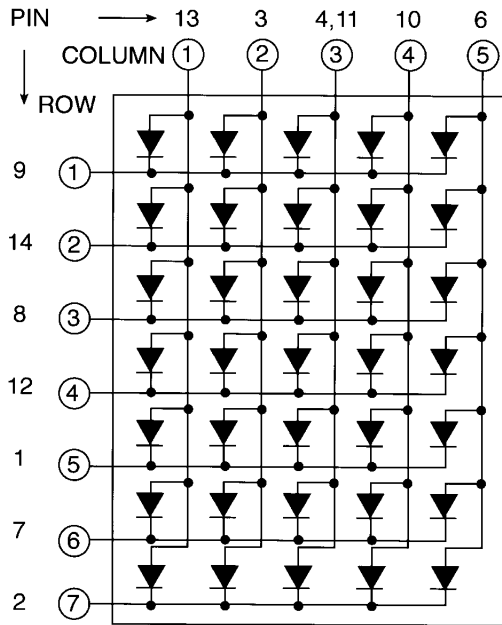


**2.0" 5 × 7  
DOT MATRIX DISPLAYS**

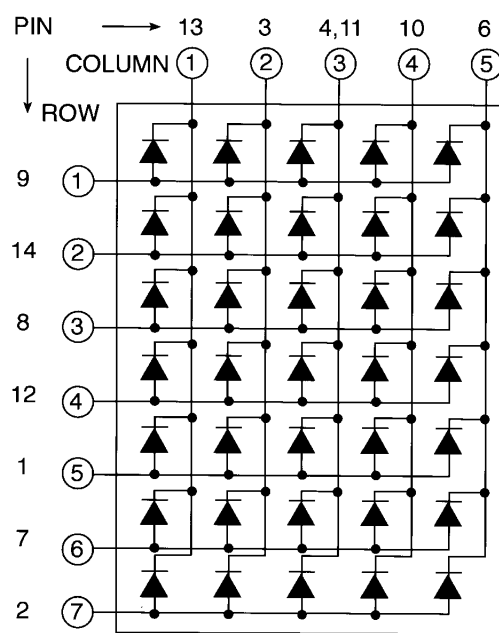
<b>PIN CONNECTION</b>			
<b>PIN NO.</b>	<b>GMC2X75C</b>	<b>GMA2X75C</b>	<b>GMA2675C</b>
1	Cathode row 5	Anode row 5	Cathode column 1 green
2	Cathode row 7	Anode row 7	Cathode column 2 green
3	Anode column 2	Cathode column 2	Cathode column 2 HER
4	Anode column 3	Cathode column 3	Cathode column 3 HER
5	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

**INTERNAL CIRCUIT DIAGRAM**

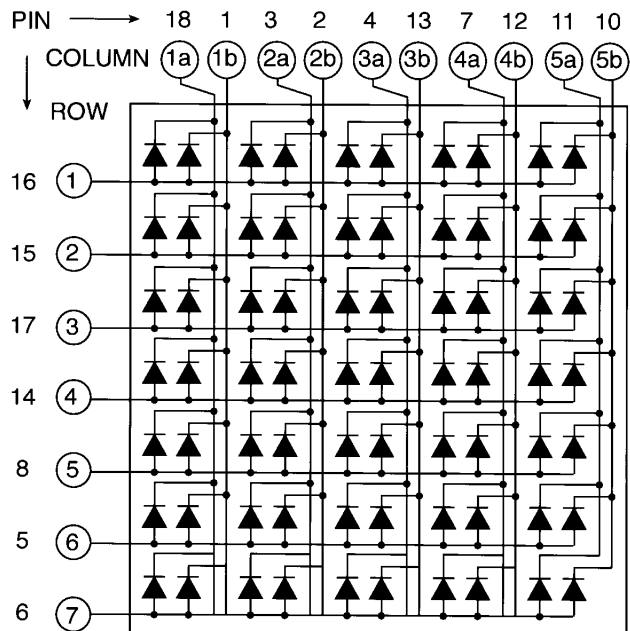
**A. GMC2X75C**



**B. GMA2X75C**



**C. GMA2675C**





## 2.0" 5 X 7 DOT MATRIX DISPLAYS

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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.