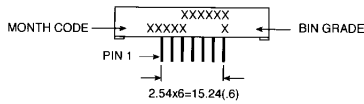
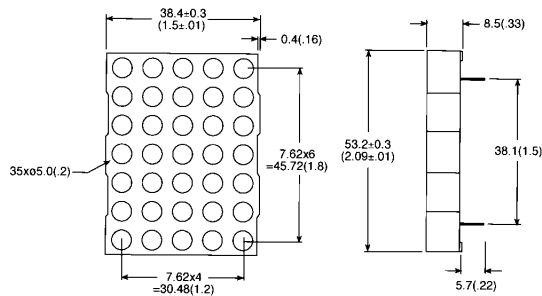


**YELLOW GMA 2875C GMC 2875C  
HER GMA 2975C GMC 2975C  
GREEN GMA 2475C GMC 2475C  
BICOLOR RED/GREEN GMA 2675C**

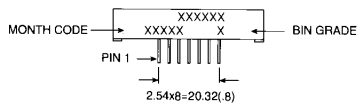
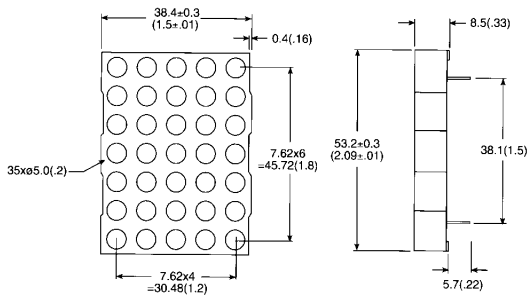
**PACKAGE DIMENSIONS**

**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.

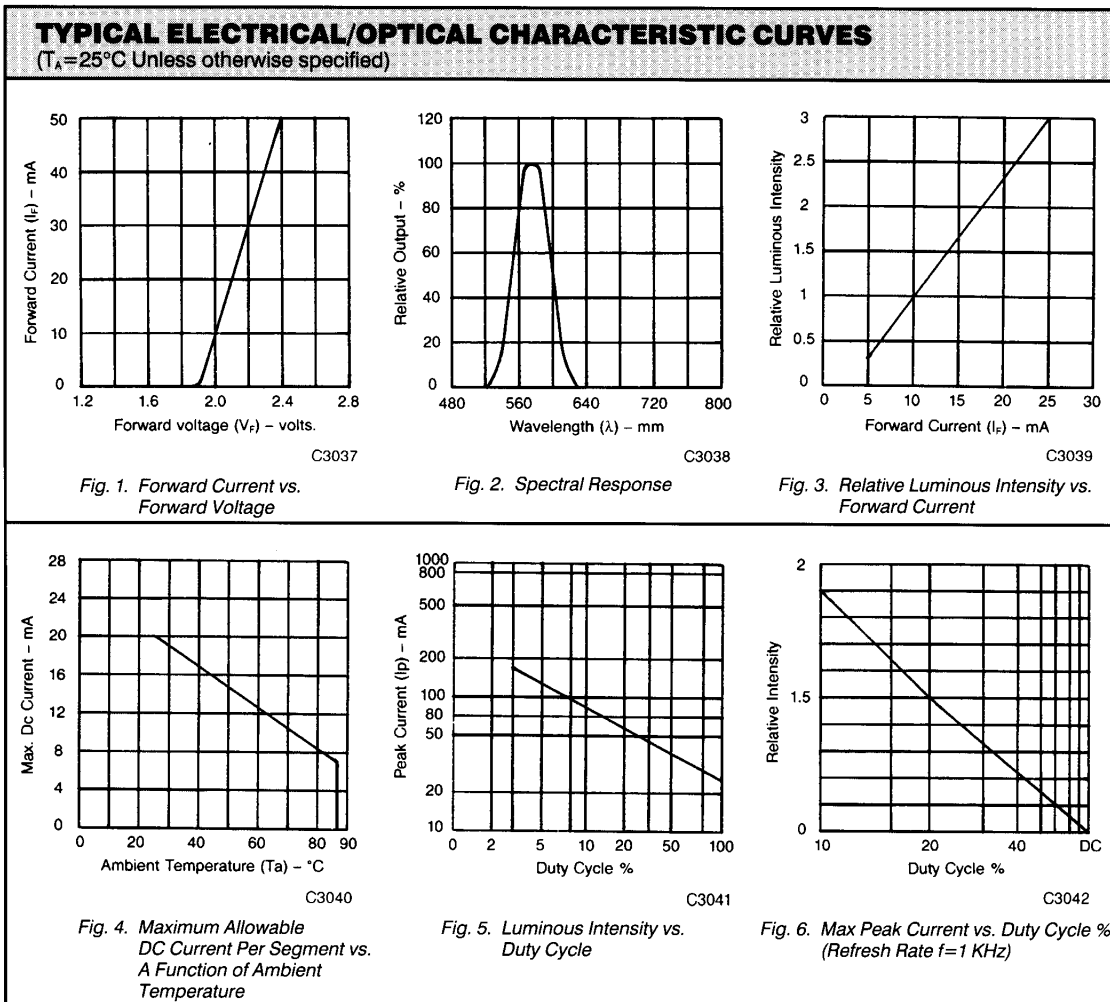


**2.0' 5 × 7  
DOT MATRIX DISPLAYS**

<b>ABSOLUTE MAXIMUM RATING</b> ( $T_A = 25^\circ\text{C}$ 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	mA
Continuous $I_f$ per dot/color .....	20	25	25	mA
Reverse voltage $V_R$ per dot/color .....	5	5	5	V
Operating and storage temperature range .....				$-25^\circ\text{C}$ to $+85^\circ\text{C}$
Soldering time at $260^\circ\text{C}$ ( $1/16$ inch below seating plane) .....				3 sec

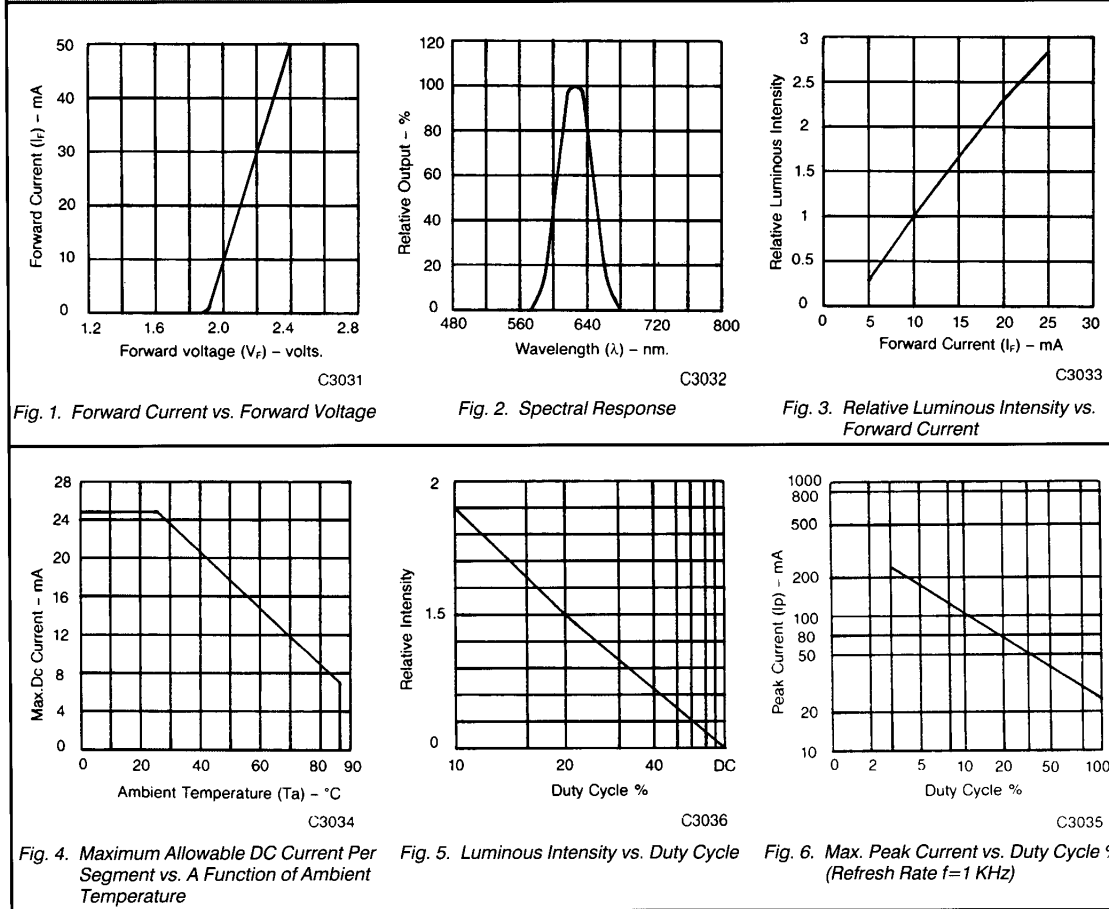
<b>MODEL NUMBERS</b>							
		PART NO.			DESCRIPTION	PACKAGE DIMENSION	INTERNAL CIRCUIT DIAGRAM
YELLOW	HER	GREEN	MULTI-COLOR				
GMC2875C	GMC2975C	GMC2475C		Anode column, cathode row	A	A	
GMA2875C	GMA2975C	GMA2475C		Cathode column, anode row	A	B	
			GMA2675C	Cathode column, anode row	B	C	

<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	$\mu\text{A}$	$V_R = 5\text{ V}$



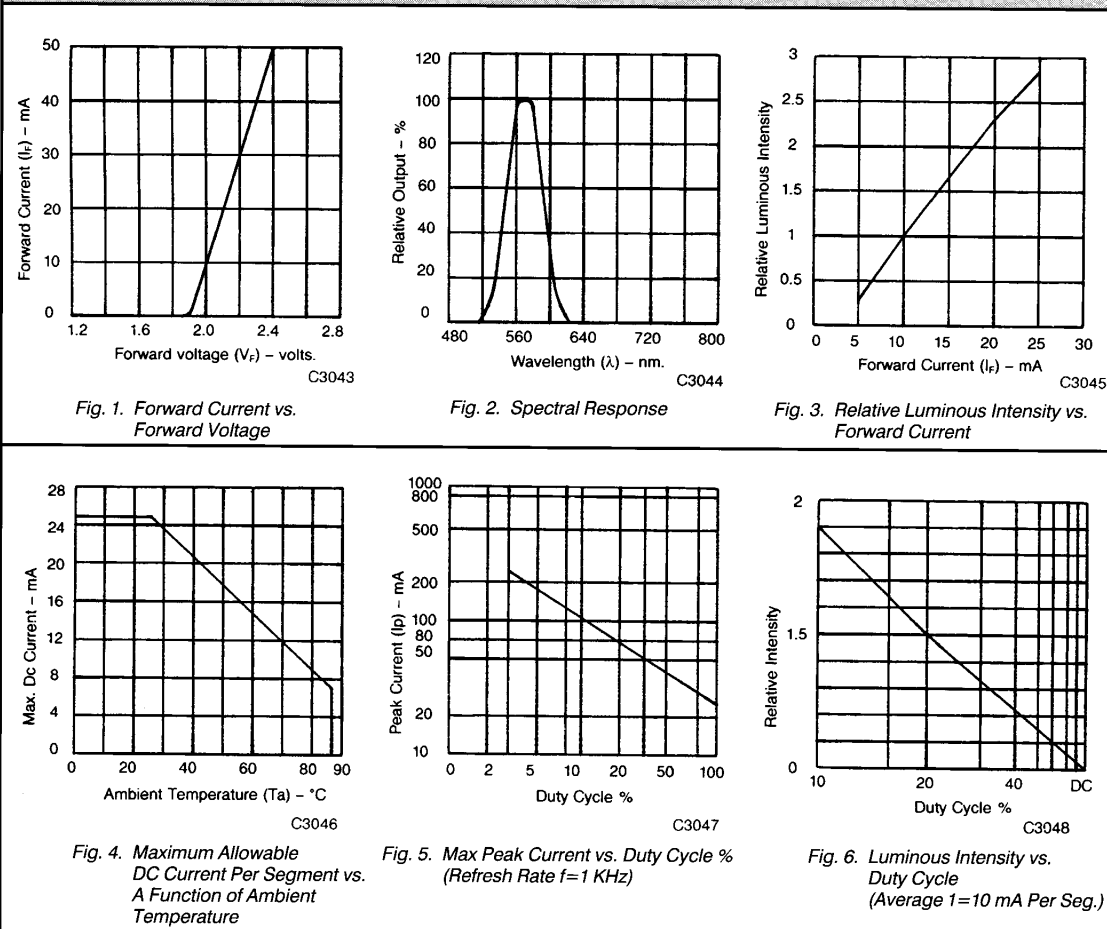
<b>ELECTRICAL/OPTICAL CHARACTERISTICS</b> ( $T_A = 25^\circ\text{C}$ Unless otherwise specified)					
<b>GMX 2975C</b>					
PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Average luminous intensity		3000		$\mu\text{cd}$	$I_F = 20 \text{ mA}$
Peak emission wavelength		635		nm	$I_F = 20 \text{ mA}$
Spectral 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	$\mu\text{A}$	$V_R = 5\text{ V}$

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



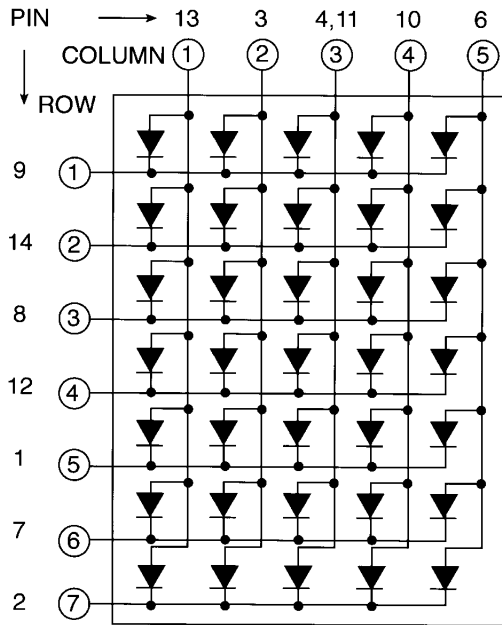


**2.0" 5 × 7  
DOT MATRIX DISPLAYS**

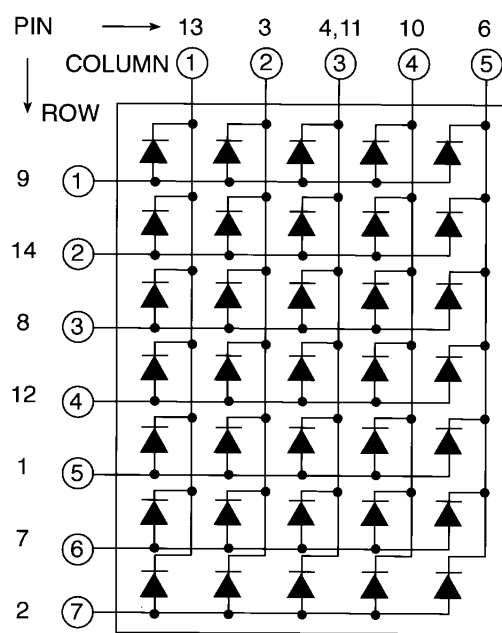
<b>PIN CONNECTION</b>			
<b>PIN NO.</b>	<b>GMC2X75C</b>	<b>GMA2X75C</b>	<b>GMA2675C</b>
1	Cathode row 5	Anode row 5	Cathode column 1 green
2	Cathode row 7	Anode row 7	Cathode column 2 green
3	Anode column 2	Cathode column 2	Cathode column 2 HER
4	Anode column 3	Cathode column 3	Cathode column 3 HER
5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

