

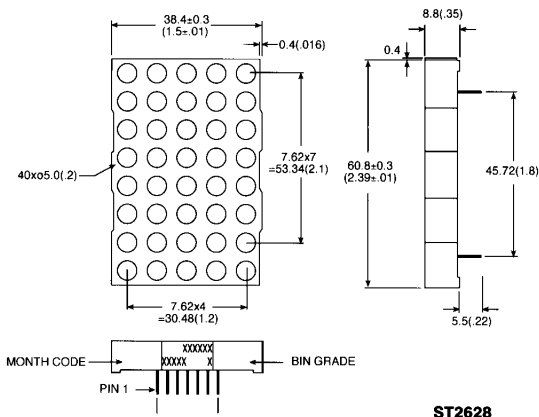


2.3" 5 × 8 DOT MATRIX DISPLAYS

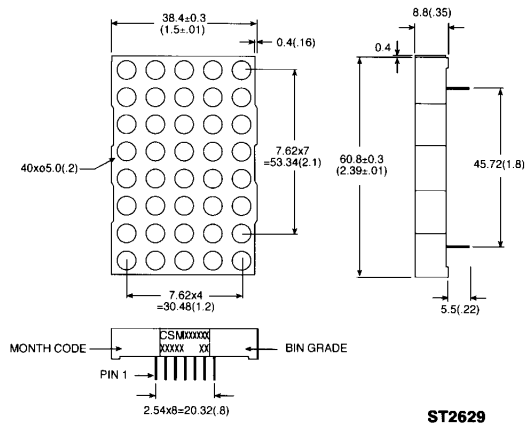
YELLOW GMA 2885C GMC 2885C
HER GMA 2985C GMC 2985C
GREEN GMA 2485C GMC 2485C
BICOLOR RED/GREEN GMA 2685C

PACKAGE DIMENSIONS

A. GMX2X85C



B. GMA2685C



DESCRIPTION

These are 5×8 dot matrix displays with large emitting area (0.2" diameter) LED sources. The GMX2X85C series are single color displays with the exception of GMA2685C 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

- 2.3" (58.4 mm) character height
- Low power requirement
- High contrast & brightness
- Wide viewing angle 130°
- 5 × 8 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 90.5 (.02).
2. DIMENSIONS IN MILLIMETERS (INCH), TOLERANCE IS ±0.25 (.01) UNLESS OTHERWISE NOTED.

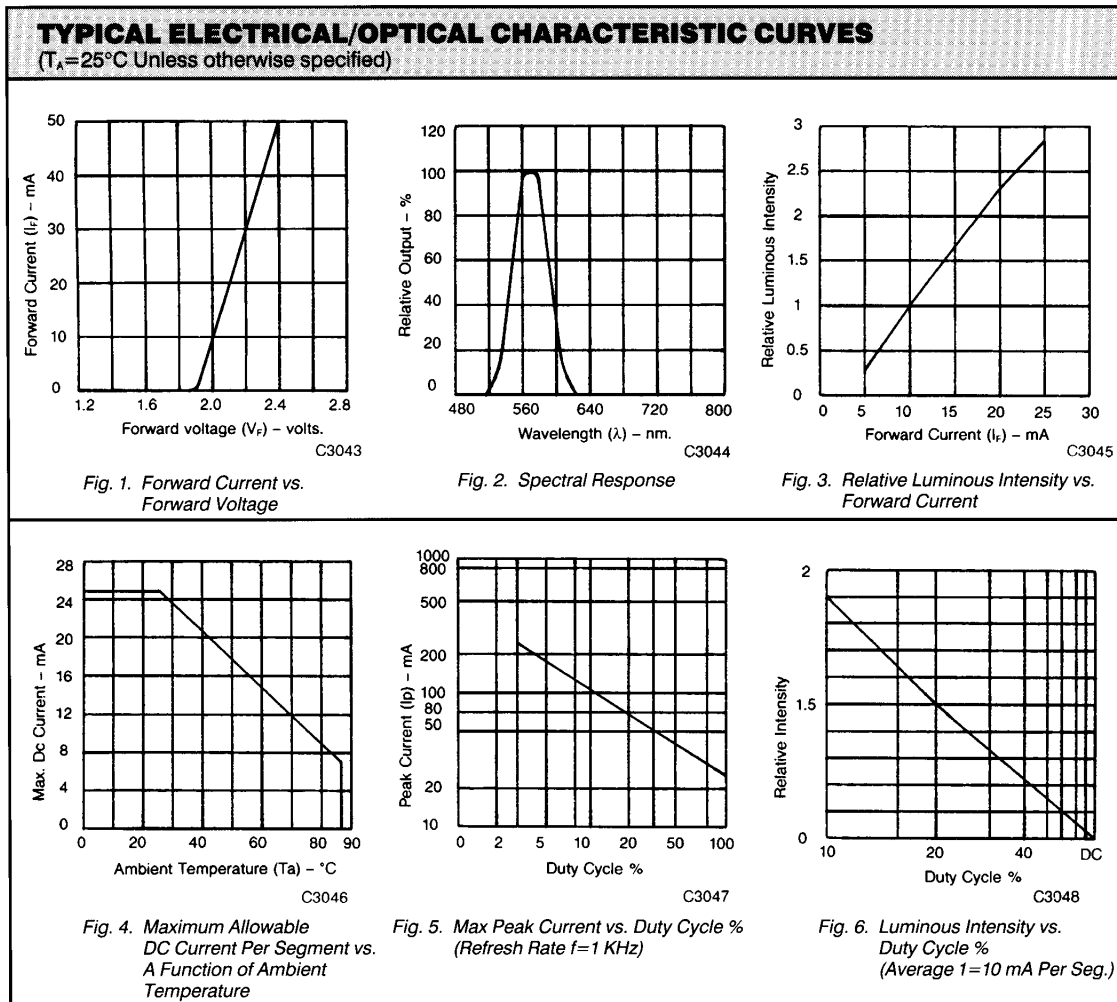


**2.3" 5 × 8
DOT MATRIX DISPLAYS**

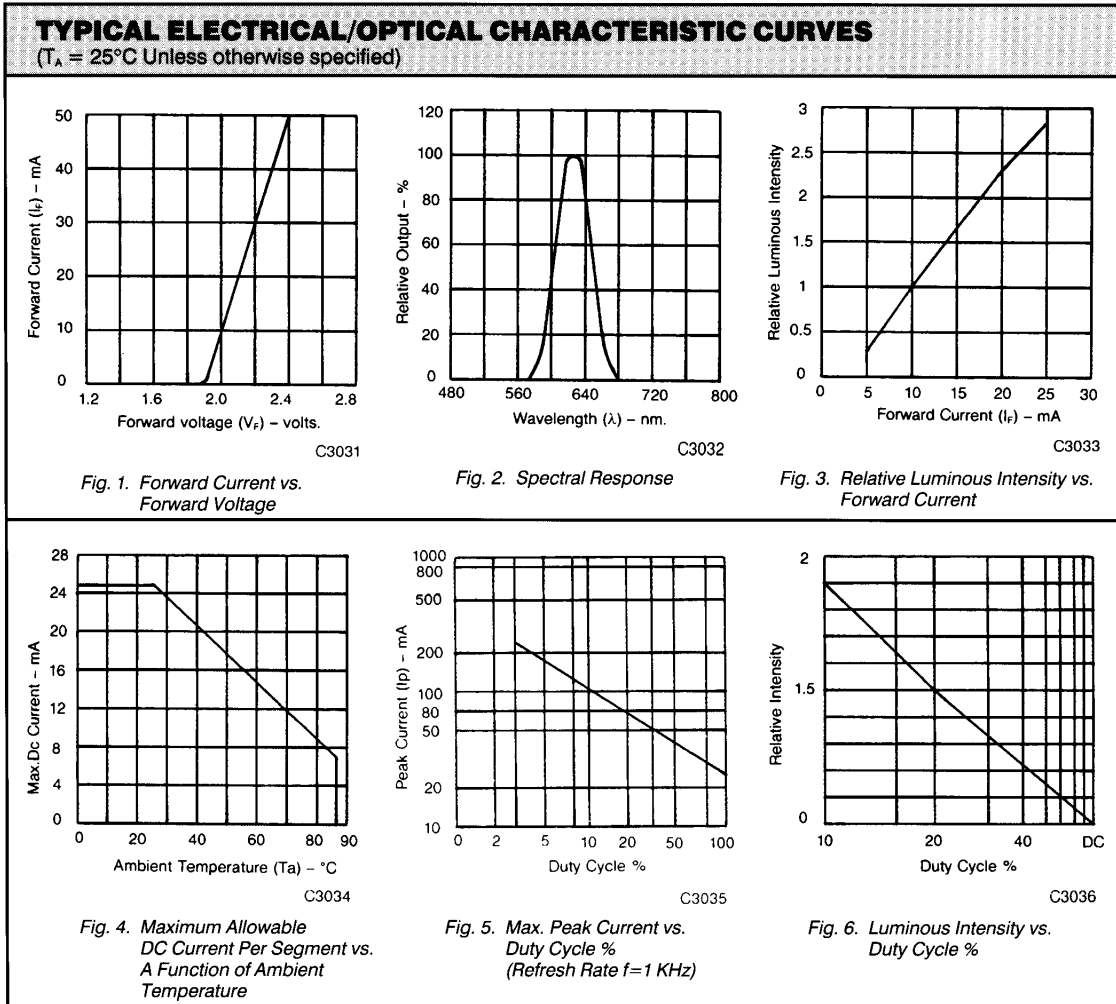
ABSOLUTE MAXIMUM RATING ($T_A = 25^\circ\text{C}$ unless otherwise specified)				
PARAMETER	YELLOW	HER	GREEN	UNITS
Power dissipation per dot/color	60	70	75	mW
Peak forward current per dot/color (duty cycle 1/10, 10KHz)	80	100	100	mA
Continuous I_f per dot/color	20	25	25	mA
Reverse voltage V_R per dot/color	5	5	5	V
Operating and storage temperature range				-25°C to $+85^\circ\text{C}$
Soldering time at 260°C ($1/16$ inch below seating plane)				3 sec

MODEL NUMBERS							
		PART NO.			DESCRIPTION	PACKAGE DIMENSION	INTERNAL CIRCUIT DIAGRAM
YELLOW	HER	GREEN	MULTI-COLOR				
GMC2885C	GMC2985C	GMC2485C		Anode column, cathode row	A	A	
GMA2885C	GMA2985C	GMA2485C		Cathode column, anode row	A	B	
			GMA2685C	Cathode column, anode row	B	C	

ELECTRICAL/OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise specified)					
GMX 2485C					
PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Average luminous intensity		3000		μcd	$I_f = 20 \text{ mA}$
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	μA	$V_R = 5 \text{ V}$

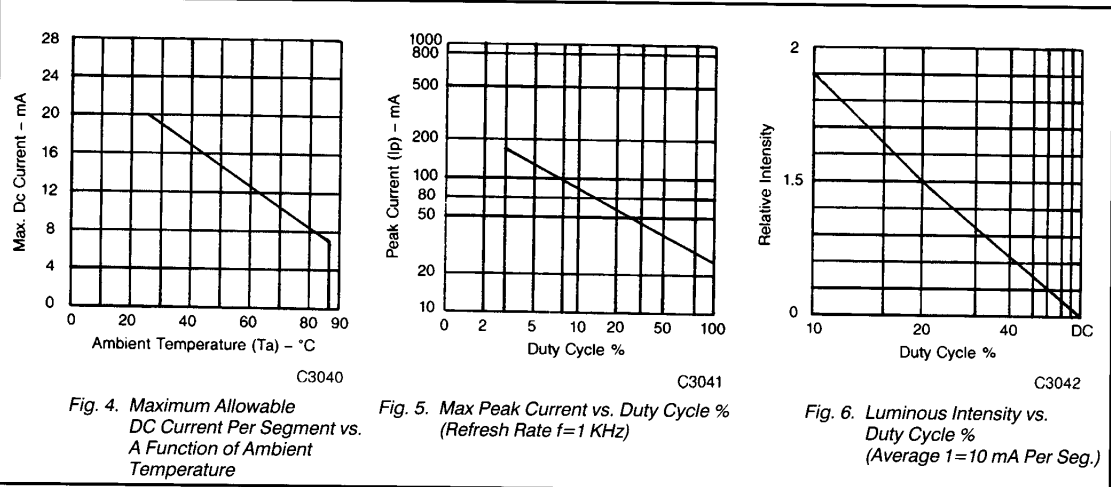
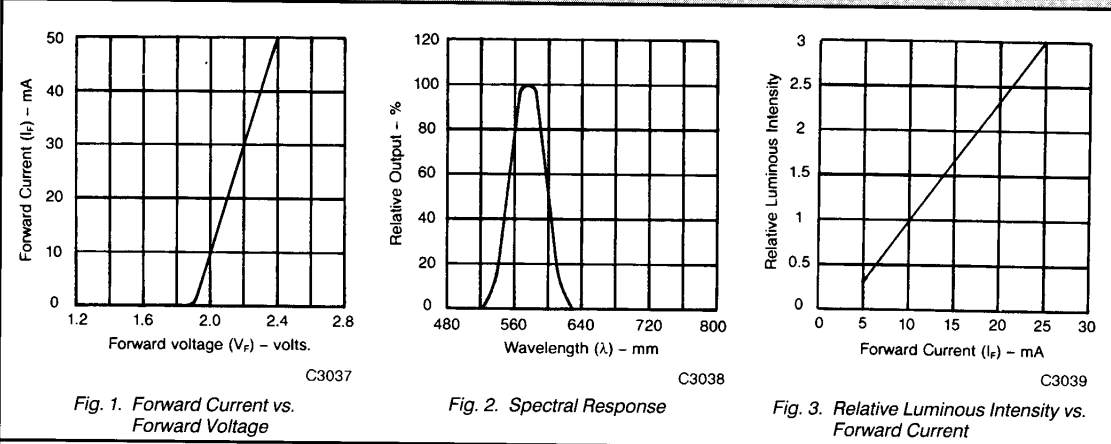


ELECTRICAL/OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise specified)					
GMX 2985C					
PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Average luminous intensity		3000		μcd	$I_F = 20\text{ mA}$
Peak emission wavelength		635		nm	$I_F = 20\text{ mA}$
Spectral line half-width		30		nm	$I_F = 20\text{ mA}$
Forward voltage, any dot		2.1	2.8	V	$I_F = 20\text{ mA}$
Reverse voltage, any dot			100	μA	$V_R = 5\text{ V}$



ELECTRICAL/OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ Unless otherwise specified)					
GMX 2885C					
PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Average luminous intensity		3000		μcd	$I_f = 20 \text{ mA}$
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	μA	$V_R = 5 \text{ V}$

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



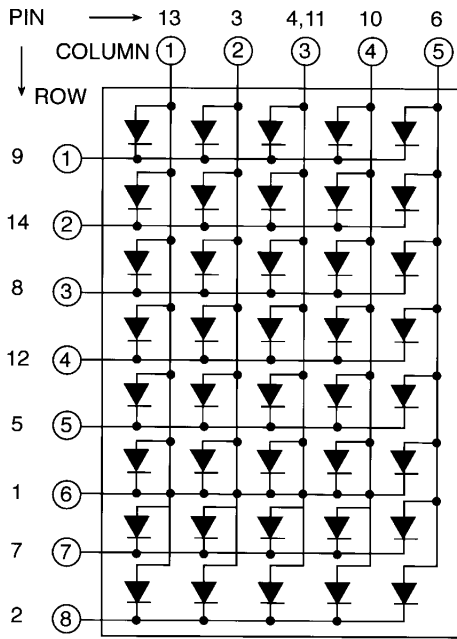


**2.3" 5 × 8
DOT MATRIX DISPLAYS**

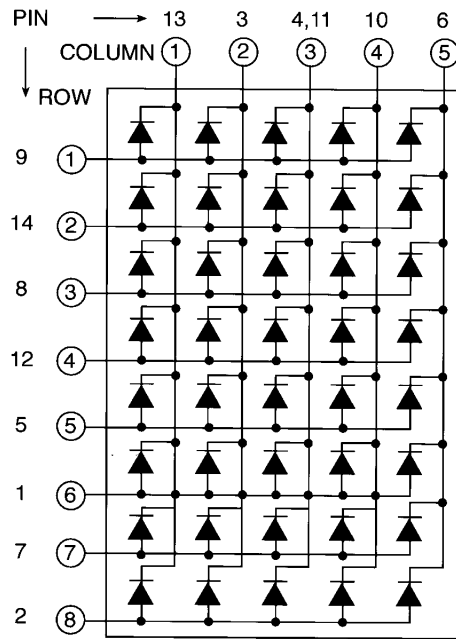
PIN CONNECTION			
PIN NO.	GMC2X85C	GMA2X85C	GMC2685C
1	Cathode row 6	Anode row 6	Cathode column 1 green
2	Cathode row 8	Anode row 8	Cathode column 2 green
3	Anode column 2	Cathode column 2	Cathode column 2 HER
4	Anode column 3	Cathode column 3	Cathode column 3 HER
5	Cathode row 5	Anode row 5	Anode row 6
6	Anode column 5	Cathode column 5	Anode row 7
7	Cathode row 7	Anode row 7	Cathode column 4 HER
8	Cathode row 3	Anode row 3	Anode row 5
9	Cathode row 1	Anode row 1	Anode row 8
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
15			Anode row 1
15			Anode row 3
15			Cathode column 1 HER

INTERNAL CIRCUIT DIAGRAM

A. GMC2X85C



B. GMA2X85C



C. GMA2685C

