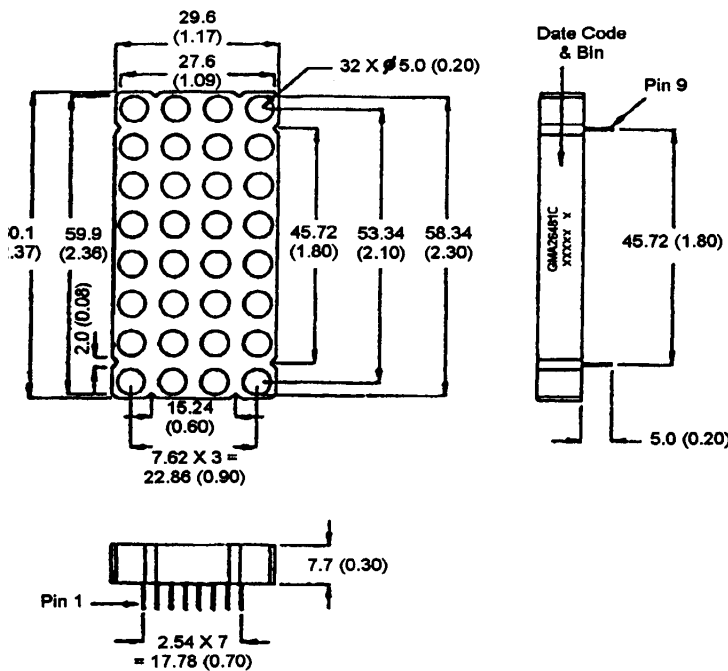


HER Red / Green GMA26481C
(BI-COLOR)

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 GMA26481C is a common cathode column 4 X 8, bicolor High Efficiency Red / green dot matrix display. It has a black face with neutral segment color.

FEATURES

- 2.3" (58.4mm) character height.
- Low power requirement.
- Wide 130° viewing angle.
- High brightness and contrast
- 4 X 8 array with X-Y select.
- X-Y stackable.
- Easy mounting on P.C. board.

MODEL NUMBER

| <u>Part Number</u> | <u>Colour</u> | <u>Description</u> |
|--------------------|---------------|--------------------|
| GMA26481C | HER Red/Green | Common anode row. |

(For other color options, contact your local area Sales Office)

ABSOLUTE MAXIMUM RATING ($T_A = 25^\circ\text{C}$ unless otherwise specified)

| | HER | Green | Units |
|--|----------------|-------|-------|
| Peak forward current per segment (Duty cycle 1/10, 10KHz) | 90 | 90 | mA |
| Continous IF per segment | 25 | 25 | mA |
| Power dissipation per segment | 70* | 70 | mW |
| *Derate linearly from 25°C | 0.33 | 0.33 | mW/°C |
| Reverse voltage VR per segment | 5 | 5 | Volts |
| Operating and storage temperature range..... | -25°C to +85°C | | |
| Soldering time at 260°C..... (1/16" below seating plane) | 3 sec | | |

ELECTRO - OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

| | HER | Green | Test Condition |
|---|---------|---------|----------------------|
| Luminous Intensity/Dot Digit average (Typical) | 2200ucd | 1600ucd | $I_F = 20\text{mA}$ |
| Forward voltage (V_F) typical | 2.0V | 2.1V | $I_F = 20\text{ mA}$ |
| maximum | 2.8V | 2.8V | $I_F = 20\text{ mA}$ |
| Peak wavelength (nm) | 635nm | 570nm | $I_F = 20\text{ mA}$ |
| Spectral line half width (nm) | 45nm | 30nm | $I_F = 20\text{mA}$ |
| Reverse breakdown voltage V_R | 5V | 5V | $I_R = 100\text{uA}$ |

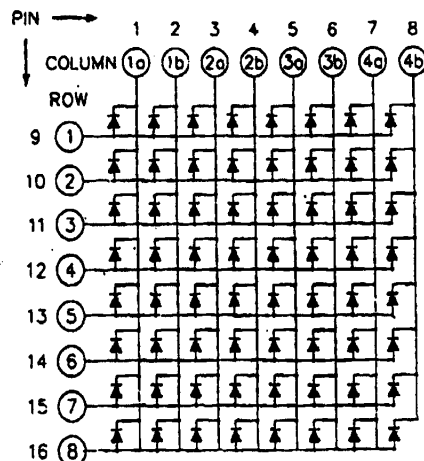
PIN CONNECTION:

GMA3688C

| Pin Number | Function | Pin Number | Function |
|------------|-------------------|------------|-------------|
| 1 | Cathode Column 1a | 9 | Anode Row 1 |
| 2 | Cathode Column 1b | 10 | Anode Row 2 |
| 3 | Cathode Column 2a | 11 | Anode Row 3 |
| 4 | Cathode Column 2b | 12 | Anode Row 4 |
| 5 | Cathode Column 3a | 13 | Anode Row 5 |
| 6 | Cathode Column 3b | 14 | Anode Row 6 |
| 7 | Cathode Column 4a | 15 | Anode Row 7 |
| 8 | Cathode Column 4b | 16 | Anode Row 8 |

Note "a" = High Efficiency Red LED
"b" = Green LED

SCHEMATIC:



GRAPHICAL DETAIL: High Efficiency Red ($T_A = 25^\circ\text{C}$ unless otherwise specified)

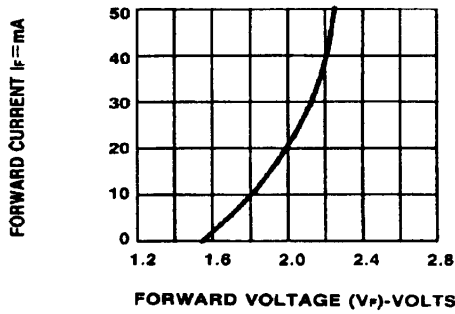


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

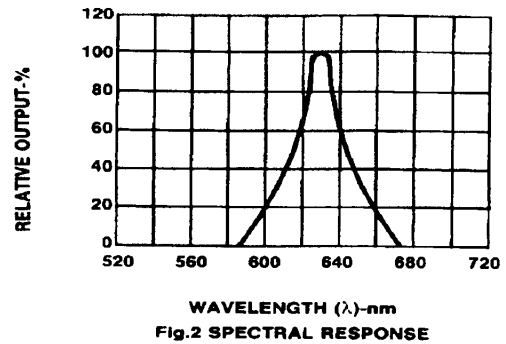


Fig.2 SPECTRAL RESPONSE

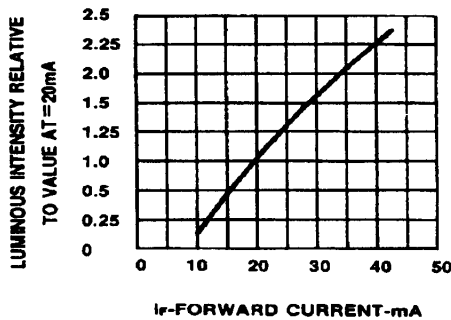


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

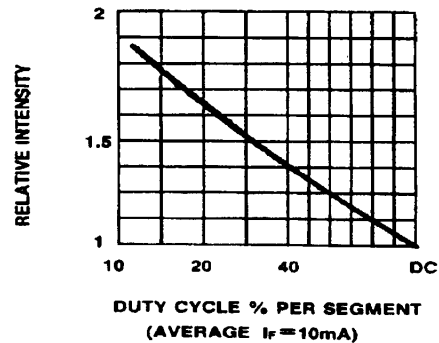


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

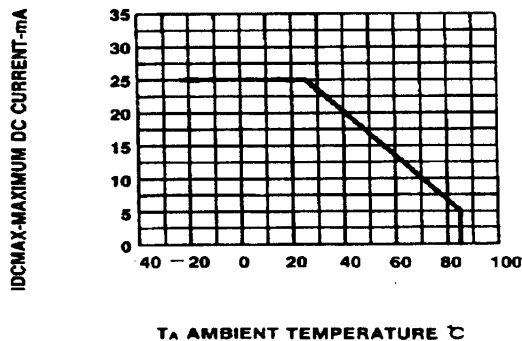


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE.

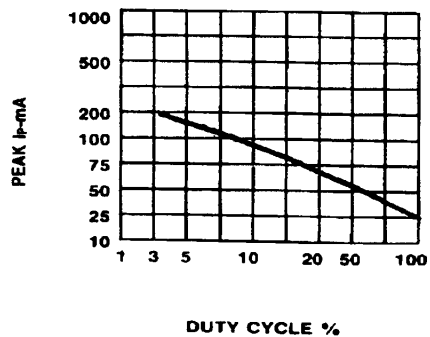


Fig. 6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE $f=1\text{ kHz}$)

GRAPHICAL DETAIL: Green ($T_A = 25^\circ\text{C}$ unless otherwise specified)

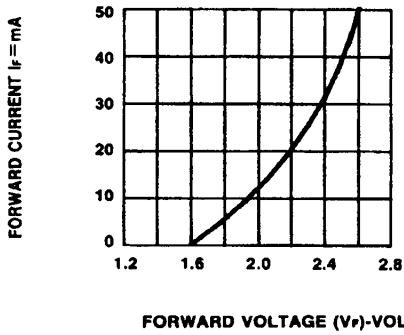


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

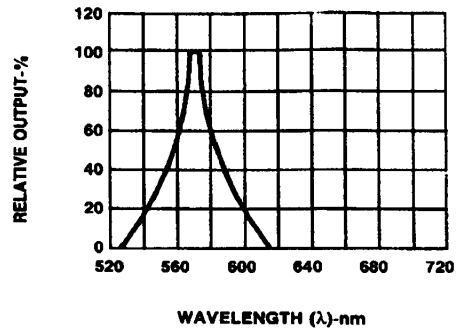


Fig.2 SPECTRAL RESPONSE

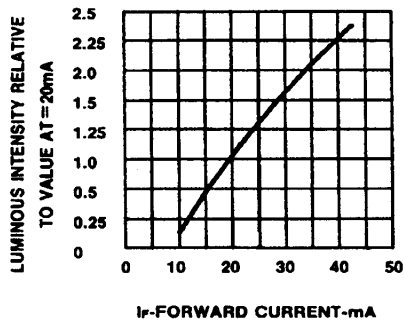


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

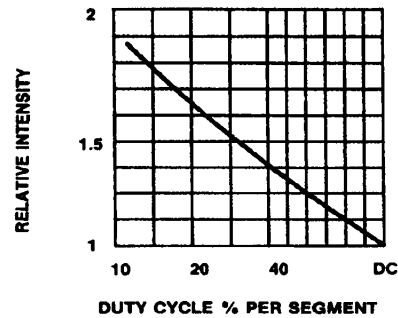


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

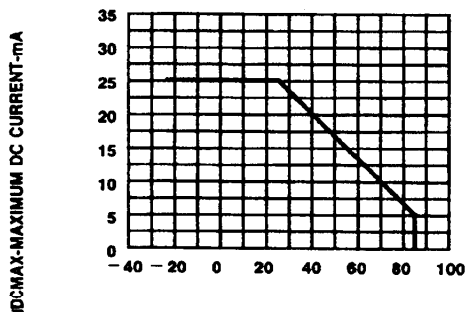


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT CS. A FUNCTION OF AMBIENT TEMPERATURE.

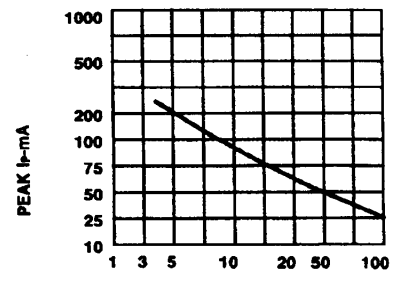


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE $f = 1\text{ KHz}$)

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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.