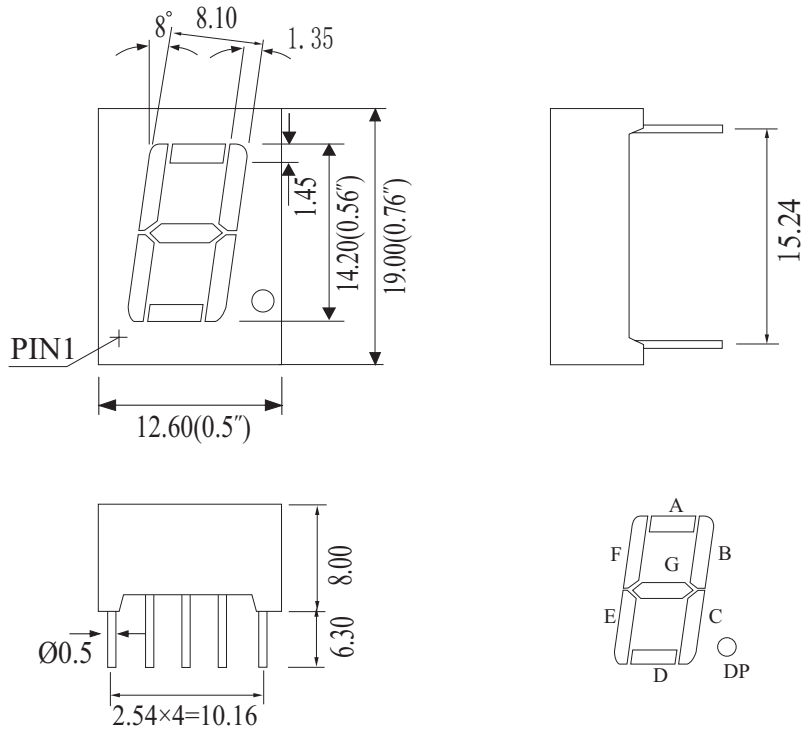


# Part Number System for Displays

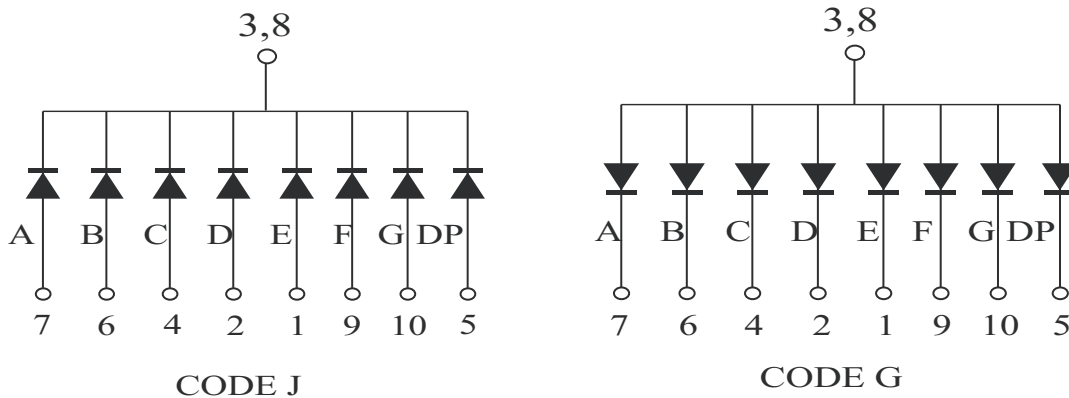
## PACKAGE DIMENSION

**E10561**



UNIT: MM(INCH) TOLERANCE:  $\pm 0.25(0.01'' )$

## INTERNAL CIRCUIT DIAGRAM



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Chip Material: AlGaInP / GaAs Ultra Bright Red LED Chip



### ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

| PARAMETER                                                               | SYMBOL            | MAXIMUM RATING | UNIT |
|-------------------------------------------------------------------------|-------------------|----------------|------|
| Power Dissipation                                                       | P <sub>D</sub>    | 72             | mW   |
| Peak Forward Current<br>(1/10 Duty Cycle, 0.1 Ms Pulse Width)           | I <sub>PEAK</sub> | 90             | mA   |
| DC Forward Current                                                      | I <sub>F</sub>    | 30             | mA   |
| Reverse Voltage                                                         | V <sub>R</sub>    | 5              | V    |
| Operating Temperature Range                                             | T <sub>A</sub>    | -40°C to +85°C |      |
| Storage Temperature Range                                               | T <sub>STG</sub>  | -40°C to +85°C |      |
| Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C |                   |                |      |

### ELECTRICAL OPTICAL CHARACTER AND CURVES (Ta = 25°C)

| PARAMETER                    | SYMBOL            | MIN  | TYP  | MAX  | UNIT | LOCATION | TEST CONDITION                |
|------------------------------|-------------------|------|------|------|------|----------|-------------------------------|
| Forward Voltage              | V <sub>F</sub>    | -    | 2.10 | 2.40 | V    | Per Chip | I <sub>F</sub> = 20mA         |
| Luminous Intensity           | I <sub>v</sub>    | 58.0 | 68.0 | 74.0 | mcd  | Per Chip | I <sub>F</sub> = 20mA         |
| Peak Emission Wavelength     | λ <sub>p</sub>    | -    | 645  | -    | nm   | Per Chip | I <sub>F</sub> = 20mA         |
| Dominant Emission Wavelength | λ <sub>d</sub>    | 626  | 631  | 636  | nm   | Per Chip | I <sub>F</sub> = 20mA         |
| Spectral Line Half-Width     | Δλ <sub>1/2</sub> | -    | 20   | -    | nm   | Per Chip | I <sub>F</sub> = 20mA         |
| Capacitance                  | C                 | -    | 95   | -    | pF   | Per Chip | V <sub>F</sub> = 0V; f = 1MHz |
| Reverse Current              | I <sub>R</sub>    | -    | -    | 10   | uA   | Per Chip | V <sub>R</sub> = 5V           |

**Note:**

1. Luminous intensity tolerance is ±10%;
2. Dominant Emission Wavelength tolerance is ±5%.

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## ■ Typical Electro-Optical Characteristic Curve:

FIG. 1 Forward Current Vs. Forward Voltage

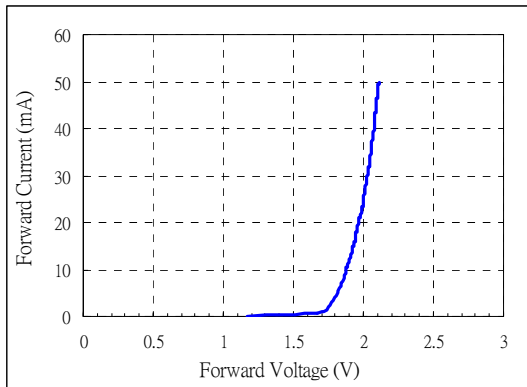


FIG. 2 Relative Intensity Vs. Forward Current

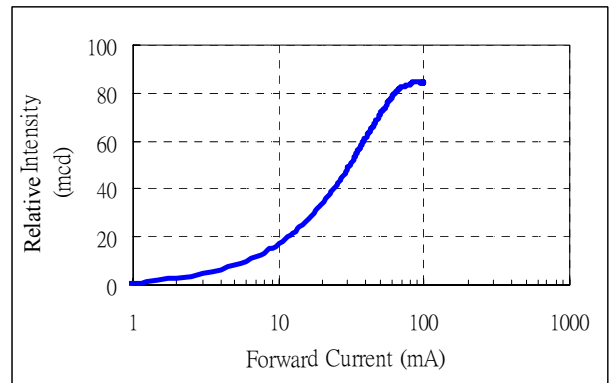


FIG. 3 Forward Voltage Vs. Temperature

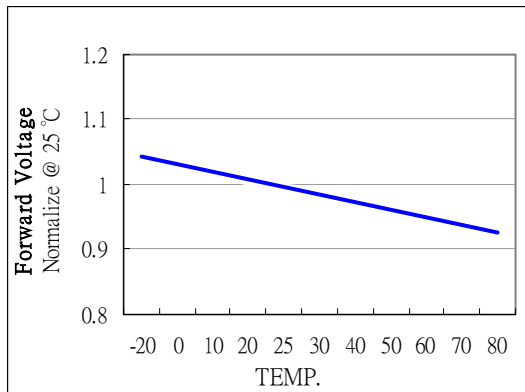


FIG. 4 Relative Intensity Vs. Temperature

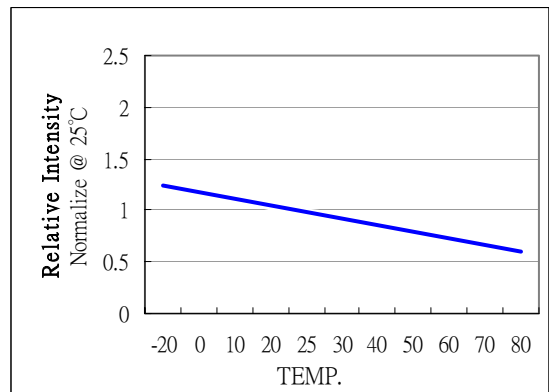


FIG. 5 Relative Intensity Vs. Wavelength

