

CUSTOMER : \_\_\_\_\_

NO. : MKM-

EDIT :

DATE :

# SPECIFICATION FOR APPROVAL

PRODUCT : 0.56" Five-Digit 7-Segment Numeric Display

MODEL NO. MD-650D/657D

| APPROVAL |     |       | REVISION |
|----------|-----|-------|----------|
| CHK      | CHK | APPD. |          |
|          |     |       |          |
| REMARKS  |     |       |          |
|          |     |       |          |



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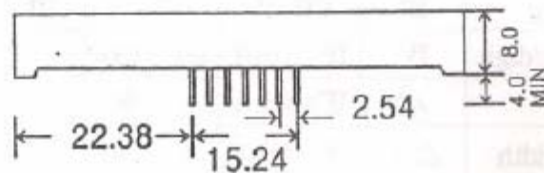
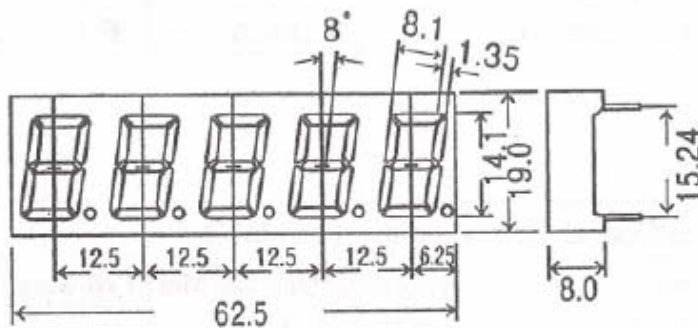
## 0.56 Inch Five-Digit 7-Segment Numeric Display

### GENERAL DESCRIPTION

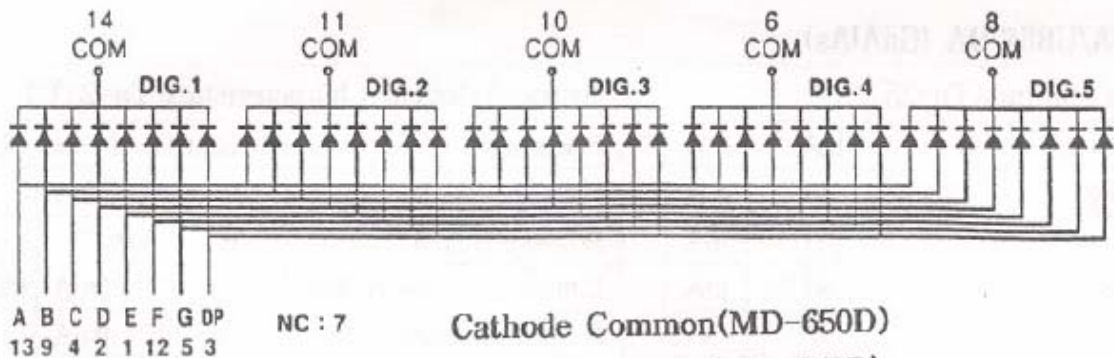
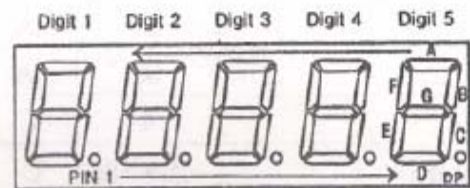
The MD-650D and MD-657D series are high performance epoxy resin molded 5-digit 7-segment LED displays for an application which space is at a premium.

The character height is approximately 0.56-inch(14.1mm) and available in red, green, orange and yellow-green emitting colors. The standard unit is constructed with black face and milky white segment color.

### PACKAGE DIMENSIONS



### ACTUAL SIZE



Cathode Common(MD-650D)

\*Anode Common(MD-657D)

All diodes are reversed polarity

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# MI KWANG ELECTRONICS MD-650D/657D

## ◆ Super Red MD-SR650D/SR657D (AlGaAs/GaAs)

### Absolute Maximum Ratings (Ta=25°C)

|                         |          |    |
|-------------------------|----------|----|
| Power dissipation/total | 1600     | mW |
| Power dissipation/seg   | 40       | mW |
| Forward current         | 20       | mA |
| Peak forward current    | 60       | mA |
| Reverse voltage         | 5        | V  |
| Operating temperature   | -25~+85  | °C |
| Storage temperature     | -55~+100 | °C |

### Electrical/Optical Characteristics (Ta=25°C)

| Parameter                | Symbol         | Condition            | Min | Typ  | Max | Unit |
|--------------------------|----------------|----------------------|-----|------|-----|------|
| Forward voltage/seg      | V <sub>f</sub> | I <sub>f</sub> =10mA | -   | 1.8  | 2.0 | V    |
| Reverse current/seg      | I <sub>r</sub> | V <sub>r</sub> =5V   | -   | -    | 10  | μA   |
| Luminous intensity/digit | I <sub>v</sub> | I <sub>f</sub> =10mA | 600 | 1300 | -   | μcd  |
| Peak wave length         | λ <sub>p</sub> | I <sub>f</sub> =10mA | -   | 660  | -   | nm   |
| Spectral line half width | Δλ             | I <sub>f</sub> =10mA | -   | 20   | -   | nm   |

## ◆ Green MD-UG650D/UG657D (GaP)

### Absolute Maximum Ratings (Ta=25°C)

|                         |          |    |
|-------------------------|----------|----|
| Power dissipation/total | 1920     | mW |
| Power dissipation/seg   | 48       | mW |
| Forward current         | 20       | mA |
| Peak forward current    | 60       | mA |
| Reverse voltage         | 5        | V  |
| Operating temperature   | -25~+85  | °C |
| Storage temperature     | -55~+100 | °C |

### Electrical/Optical Characteristics (Ta=25°C)

| Parameter                | Symbol         | Condition            | Min | Typ  | Max | Unit |
|--------------------------|----------------|----------------------|-----|------|-----|------|
| Forward voltage/seg      | V <sub>f</sub> | I <sub>f</sub> =10mA | -   | 2.2  | 2.4 | V    |
| Reverse current/seg      | I <sub>r</sub> | V <sub>r</sub> =5V   | -   | -    | 10  | μA   |
| Luminous intensity/digit | I <sub>v</sub> | I <sub>f</sub> =10mA | 600 | 1300 | -   | μcd  |
| Peak wave length         | λ <sub>p</sub> | I <sub>f</sub> =10mA | -   | 570  | -   | nm   |
| Spectral line half width | Δλ             | I <sub>f</sub> =10mA | -   | 30   | -   | nm   |

- ◆ Pulse Width - 1ms
- Duty Cycle - 1/5