

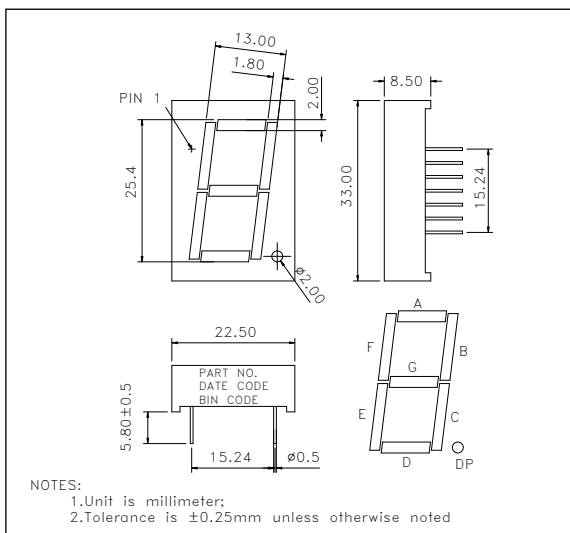
# 1.0" Single Digit Numeric Single Color LED Display



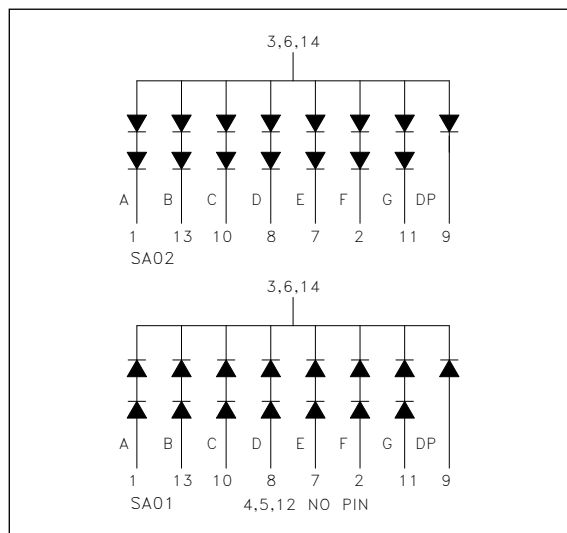
1.0" (25.4mm) digit height  
**• ABSOLUTE MAXIMUM RATINGS : (Ta=25°C)**

| PARAMETER   | RED ORANGE      | GREEN | YELLOW | SR RED | SUPER RED | SUPER GREEN | SUPER YELLOW | UNIT |
|---|-----------------|-------|--------|--------|-----------|-------------|--------------|------|
| Power Dissipation Per Seg   | 65              | 65    | 55     | 72     | 65        | 65          | 55           | mW   |
| Peak Forward Current Per Seg<br>(1/10 Duty Cycle, 0.1ms Pulse Width)    | 100             | 100   | 80     | 125    | 100       | 100         | 100          | mA   |
| Continuous Forward Current Per Seg<br>Derating Linear From 25°C Per Seg | 25              | 25    | 20     | 30     | 25        | 25          | 25           | mA   |
| Reverse Voltage Per Seg   | 5               | 5     | 5      | 5      | 5         | 5           | 5            | v    |
| Operating Tem Range   | -35°C to + 85°C |       |        |        |           |             |              |      |
| Storage Tem Range   | -35°C to + 85°C |       |        |        |           |             |              |      |
| Solder Tem 1/16 inch Below Seating Plane at 260°C for 3 seconds         |                 |       |        |        |           |             |              |      |

## • PACKAGE DIMENSIONS



## • INTERNAL CIRCUIT DIAGRAM



## • ELECTRICAL/OPTICAL CHARACTERISTICS

| PART NO.  | COLOR        | $\lambda_p/\lambda_d$<br>(nm) | Half-Spectral Width( $\Delta\lambda$ ) | Description | AVERAGE LUMINOUS INTENSITY |           |          | FORWARD VOLTAGE |          |
|-----------|--------------|-------------------------------|--|-------------|----------------------------|-----------|----------|-----------------|----------|
|           |              |                               |  |             | Min.(mcd)                  | Typ.(mcd) | @ IF(mA) | Typ.(V)         | @ IF(mA) |
| SA020E... | RED ORANGE   | 632/622                       | 35                                     | CA          | 2.5                        | 6.0       | 10       | 4.0             | 20       |
| SA010E... |              |                               |  | CC          |                            |           |          |                 |          |
| SA020G... | GREEN        | 568/570                       | 30                                     | CA          | 3.5                        | 8.0       | 10       | 4.2             | 20       |
| SA010G... |              |                               |  | CC          |                            |           |          |                 |          |
| SA020Y... | YELLOW       | 589/590                       | 35                                     | CA          | 2.5                        | 6.0       | 10       | 4.2             | 20       |
| SA010Y... |              |                               |  | CC          |                            |           |          |                 |          |
| SA020S... | SH RED       | 660/643                       | 20                                     | CA          | 3.6                        | 9.0       | 10       | 3.6             | 20       |
| SA010S... |              |                               |  | CC          |                            |           |          |                 |          |
| SA029Q... | SUPER RED    | 656/640                       | 20                                     | CA          | 4.5                        | 11.0      | 10       | 4.2             | 20       |
| SA019Q... |              |                               |  | CC          |                            |           |          |                 |          |
| SA020T... | SUPER GREEN  | 573/571                       | 15                                     | CA          | 8.0                        | 20.0      | 10       | 4.2             | 20       |
| SA010T... |              |                               |  | CC          |                            |           |          |                 |          |
| SA029C... | SUPER YELLOW | 591/589                       | 15                                     | CA          | 8.0                        | 20.0      | 10       | 4.2             | 20       |
| SA019C... |              |                               |  | CC          |                            |           |          |                 |          |

Notes : The component is available in :

- Low Current
- InGaN high intensity blue, blue-green, green, white are available



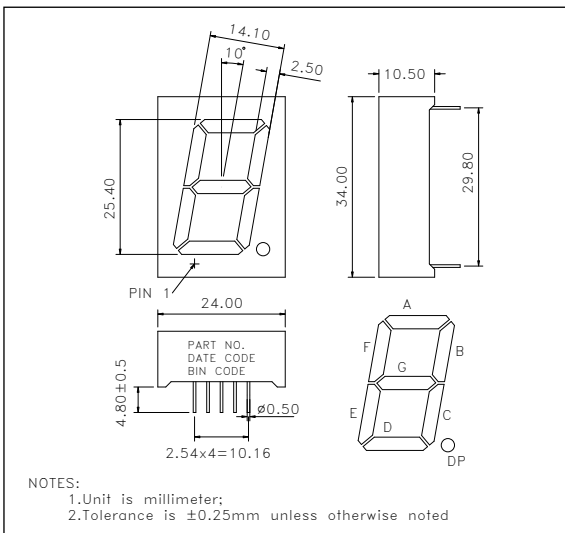
## 1.0" Single Digit Numeric Single Color LED Display

1.0" (25.4mm) digit height

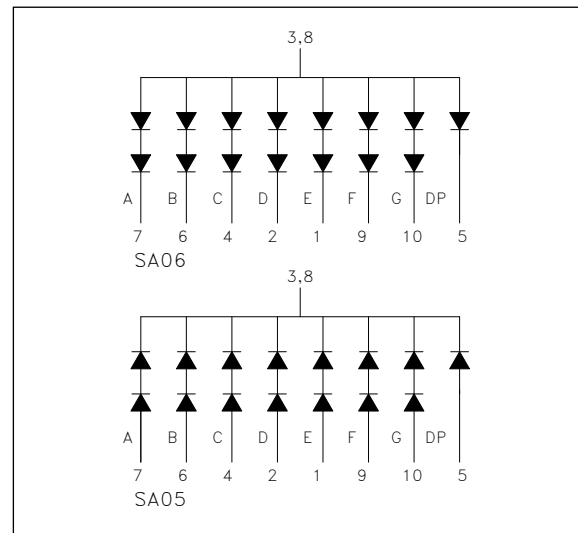
● **ABSOLUTE MAXIMUM RATINGS** : (Ta=25°C)

| PARAMETER   | RED ORANGE      | GREEN | YELLOW | SR RED | SUPER RED | SUPER GREEN | SUPER YELLOW | UNIT |
|---|-----------------|-------|--------|--------|-----------|-------------|--------------|------|
| Power Dissipation Per Seg   | 65              | 65    | 55     | 72     | 65        | 65          | 55           | mW   |
| Peak Forward Current Per Seg<br>(1/10 Duty Cycle, 0.1ms Pulse Width)    | 100             | 100   | 80     | 125    | 100       | 100         | 100          | mA   |
| Continuous Forward Current Per Seg<br>Derating Linear From 25°C Per Seg | 25              | 25    | 20     | 30     | 25        | 25          | 25           | mA   |
| Reverse Voltage Per Seg   | 5               | 5     | 5      | 5      | 5         | 5           | 5            | v    |
| Operating Tem Range   | -35°C to + 85°C |       |        |        |           |             |              |      |
| Storage Tem Range   | -35°C to + 85°C |       |        |        |           |             |              |      |
| Solder Tem 1/16 inch Below Seating Plane at 260°C for 3 seconds         |                 |       |        |        |           |             |              |      |

### ● PACKAGE DIMENSIONS



### ● INTERNAL CIRCUIT DIAGRAM



### ● ELECTRICAL/OPTICAL CHARACTERISTICS

| PART NO.  | COLOR        | $\lambda_p/\lambda_d$<br>(nm) | Half-Spectral Width( $\Delta\lambda$ ) | Description | AVERAGE LUMINOUS INTENSITY |           |          | FORWARD VOLTAGE |          |
|-----------|--------------|-------------------------------|--|-------------|----------------------------|-----------|----------|-----------------|----------|
|           |              |                               |  |             | Min.(mcd)                  | Typ.(mcd) | @ IF(mA) | Typ.(V)         | @ IF(mA) |
| SA060E... | RED ORANGE   | 632/622                       | 35                                     | CA          | 2.0                        | 5.0       | 10       | 4.0             | 20       |
| SA050E... |              |                               |  | CC          |                            |           |          |                 |          |
| SA060G... | GREEN        | 568/570                       | 30                                     | CA          | 2.6                        | 6.5       | 10       | 4.2             | 20       |
| SA050G... |              |                               |  | CC          |                            |           |          |                 |          |
| SA060Y... | YELLOW       | 589/590                       | 35                                     | CA          | 2.0                        | 5.0       | 10       | 4.2             | 20       |
| SA050Y... |              |                               |  | CC          |                            |           |          |                 |          |
| SA060S... | SH RED       | 660/643                       | 20                                     | CA          | 3.2                        | 8.0       | 10       | 3.6             | 20       |
| SA050S... |              |                               |  | CC          |                            |           |          |                 |          |
| SA069Q... | SUPER RED    | 656/640                       | 20                                     | CA          | 4.0                        | 10.0      | 10       | 4.2             | 20       |
| SA059Q... |              |                               |  | CC          |                            |           |          |                 |          |
| SA060T... | SUPER GREEN  | 573/571                       | 15                                     | CA          | 7.5                        | 18.0      | 10       | 4.2             | 20       |
| SA050T... |              |                               |  | CC          |                            |           |          |                 |          |
| SA069C... | SUPER YELLOW | 591/589                       | 15                                     | CA          | 7.5                        | 18.0      | 10       | 4.2             | 20       |
| SA059C... |              |                               |  | CC          |                            |           |          |                 |          |

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- Low Current
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