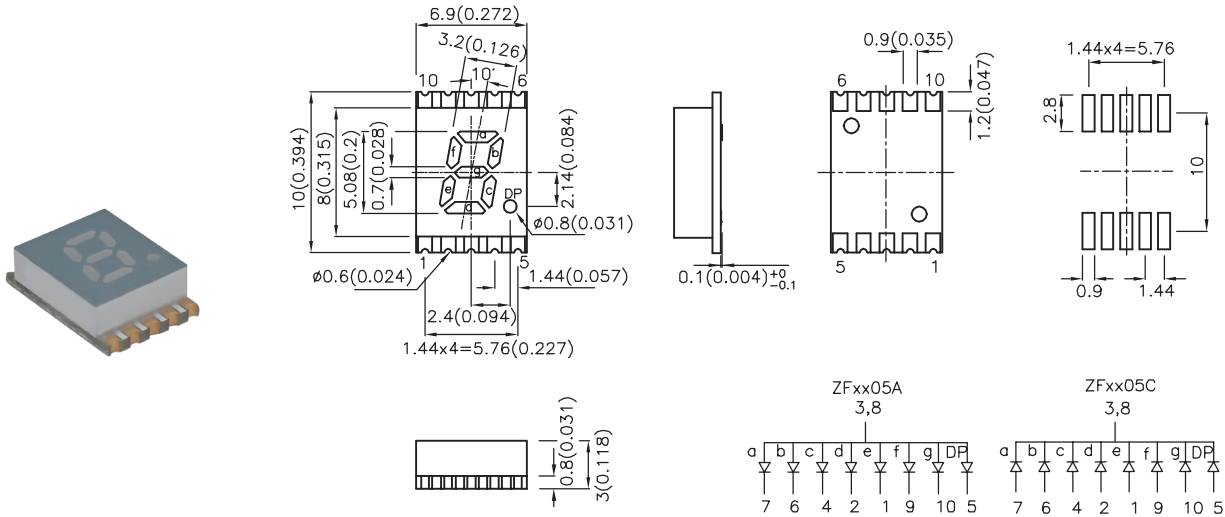


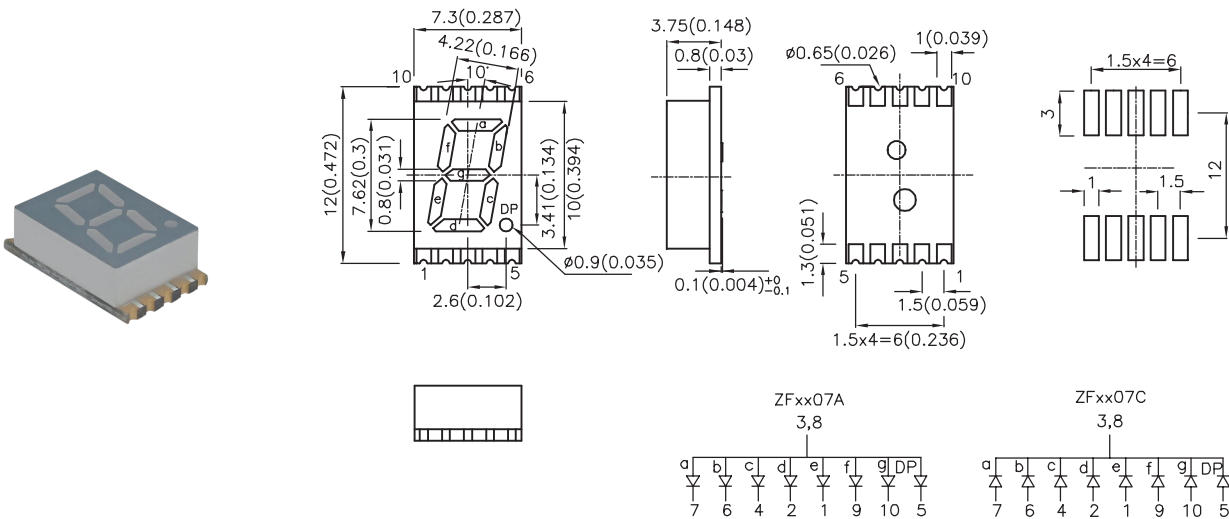
| Part Number  |                | Chip Structure<br>(Emitted Color) | $\lambda_{peak}$ (nm) | Intensity(lcd)<br>$I_f=10mA$ |      |
|--------------|----------------|-----------------------------------|-----------------------|------------------------------|------|
| Common Anode | Common Cathode |                                   |                       | Min.                         | Typ. |

0.2"(5.08mm)



|          |          |                  |     |      |      |
|----------|----------|------------------|-----|------|------|
| ZFMDK05A | ZFMDK05C | ◆ AlGaInP(Red)   | 645 | 3600 | 8090 |
| ZFUR05A  | ZFUR05C  | ◆ GaAsP/GaP(Red) | 627 | 360  | 940  |
| ZFVG05A  | ZFVG05C  | ◆ AlGaInP(Green) | 574 | 2200 | 4290 |
| ZFMG05A  | ZFMG05C  | ◆ GaP(Green)     | 565 | 560  | 1390 |

0.3"(7.62mm)



|          |          |                   |     |      |       |
|----------|----------|-------------------|-----|------|-------|
| ZFMR07A  | ZFMR07C  | ◆ GaAlAs(Red)     | 655 | 1400 | 2590  |
| ZFMDK07A | ZFMDK07C | ◆ AlGaInP(Red)    | 645 | 3600 | 6390  |
| ZFUR07A  | ZFUR07C  | ◆ GaAsP/GaP(Red)  | 627 | 360  | 690   |
| ZFMOK07A | ZFMOK07C | ◆ AlGaInP(Orange) | 610 | 5600 | 10990 |
| ZFMYK07A | -        | ◆ AlGaInP(Yellow) | 590 | 5600 | 12990 |
| ZFVG07A  | ZFVG07C  | ◆ AlGaInP(Green)  | 574 | 1400 | 3090  |
| ZFMG07A  | ZFMG07C  | ◆ GaP(Green)      | 565 | 560  | 1190  |
| ZFBBA07A | -        | ◆ InGaN(Blue)     | 468 | 1400 | 2490  |

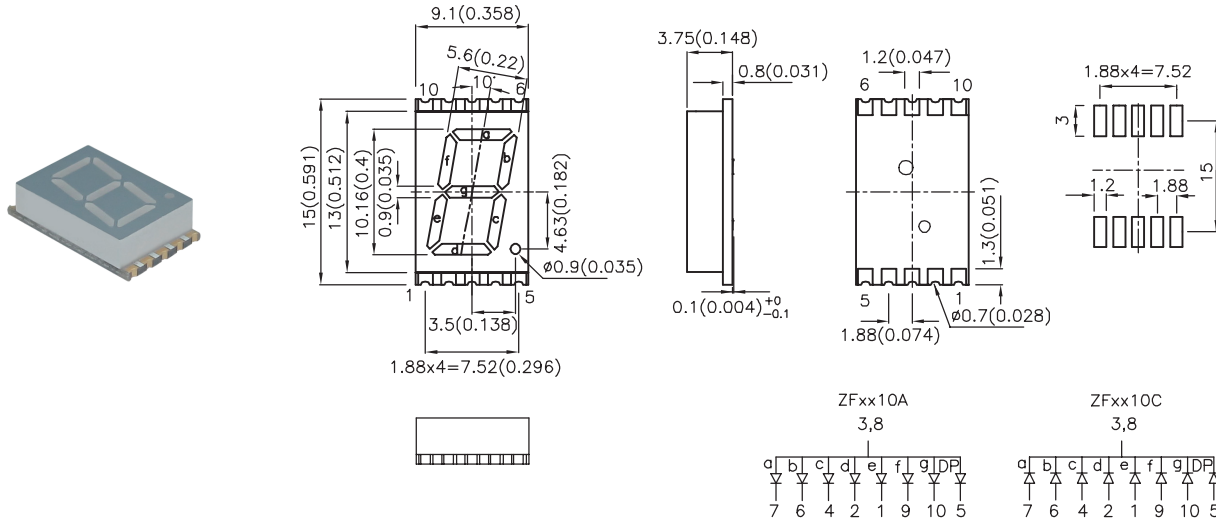
1. Dimension Unit: mm(inches), Tolerance: ±0.25mm (0.01").  
 2. Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.  
 3. We reserve the right to make changes at any time to enhance the design and / or performance of the product.



# SINGLE DIGIT SMD

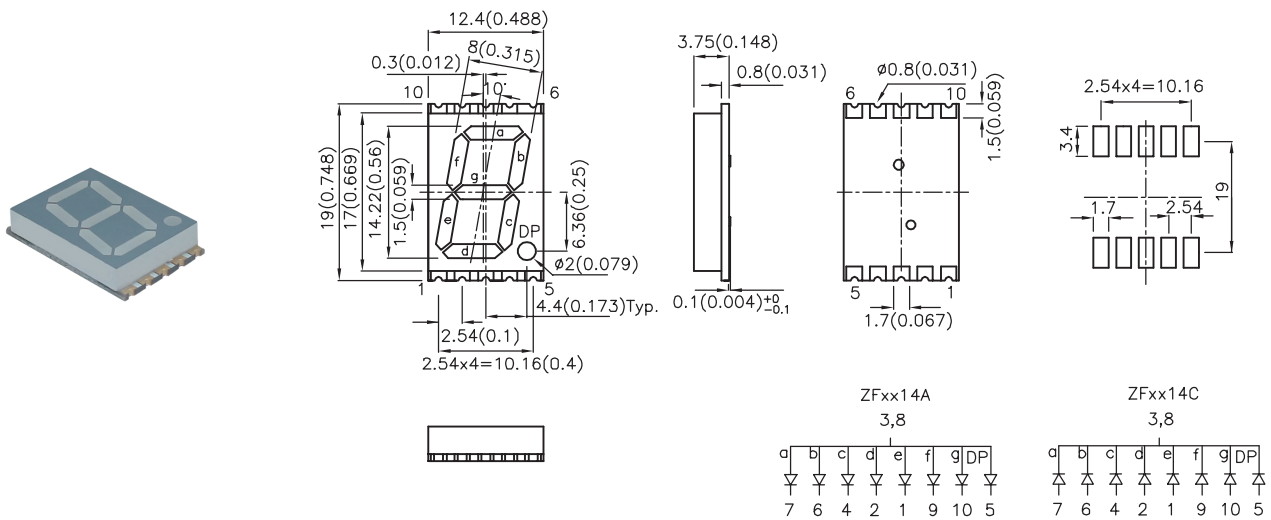
| Part Number  |                | Chip Structure<br>(Emitted Color) | $\lambda_{peak}$ (nm) | Intensity(I <sub>c</sub> =10mA) |      |
|--------------|----------------|-----------------------------------|-----------------------|---------------------------------|------|
| Common Anode | Common Cathode |                                   |                       | Min.                            | Typ. |

## 0.4"(10.16mm)



|          |          |                   |     |      |       |
|----------|----------|-------------------|-----|------|-------|
| ZFMR10A  | ZFMR10C  | ◆ GaAlAs(Red)     | 655 | 1400 | 3590  |
| ZFMDK10A | ZFMDK10C | ◆ AlGaInP(Red)    | 645 | 9000 | 19990 |
| ZFMOK10A | -        | ◆ AlGaInP(Orange) | 610 | 9000 | 14990 |
| ZFMYK10A | -        | ◆ AlGaInP(Yellow) | 590 | 9000 | 22990 |
| ZFVG10A  | ZFVG10C  | ◆ AlGaInP(Green)  | 574 | 2200 | 4090  |
| ZFMG10A  | -        | ◆ GaP(Green)      | 565 | 560  | 1190  |

## 0.56"(14.22mm)

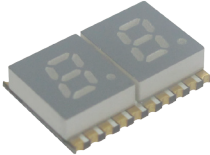
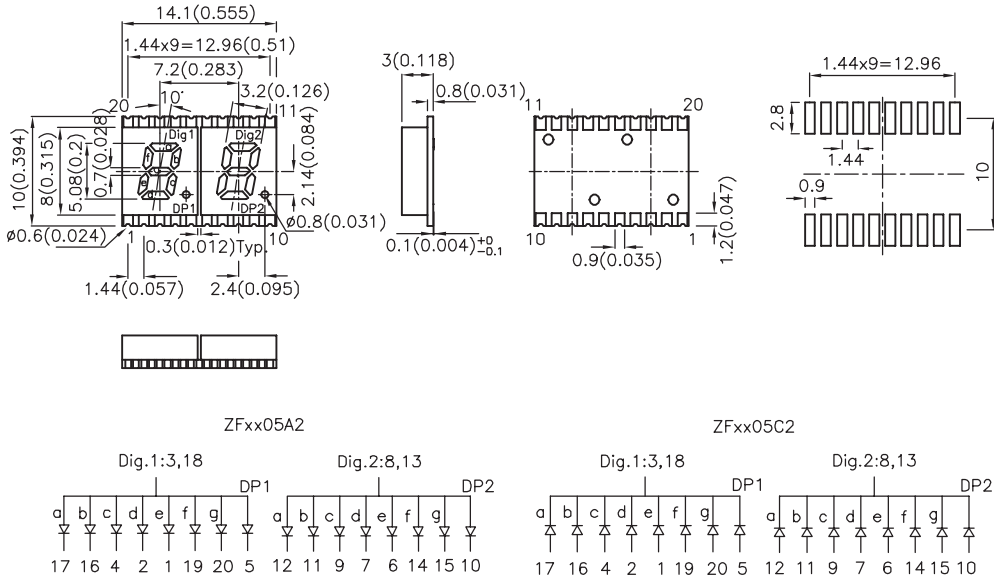


|          |          |                   |     |       |       |
|----------|----------|-------------------|-----|-------|-------|
| ZFMR14A  | ZFMR14C  | ◆ GaAlAs(Red)     | 655 | 3600  | 7190  |
| ZFMDK14A | ZFMDK14C | ◆ AlGaInP(Red)    | 645 | 14000 | 28990 |
| ZFUR14A  | -        | ◆ GaAsP/GaP(Red)  | 627 | 900   | 1590  |
| ZFMOK14A | -        | ◆ AlGaInP(Orange) | 610 | 14000 | 22990 |
| -        | ZFMYK14C | ◆ AlGaInP(Yellow) | 590 | 14000 | 28990 |
| ZFVG14A  | -        | ◆ AlGaInP(Green)  | 574 | 2200  | 4590  |
| ZFMG14A  | ZFMG14C  | ◆ GaP(Green)      | 565 | 900   | 1790  |
| -        | ZFCBD14C | ◆ InGaN(Blue)     | 460 | 5600  | 14990 |

1. Dimension Unit: mm(inches), Tolerance: ±0.25mm (0.01").  
 2. Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.  
 3. We reserve the right to make changes at any time to enhance the design and / or performance of the product.

| Part Number  |                | Chip Structure<br>(Emitted Color) | $\lambda_{peak}$ (nm) | Intensity(lcd)<br>$I_f=10mA$ |      |
|--------------|----------------|-----------------------------------|-----------------------|------------------------------|------|
| Common Anode | Common Cathode |                                   |                       | Min.                         | Typ. |

**0.2"(5.08mm)**

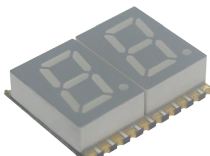
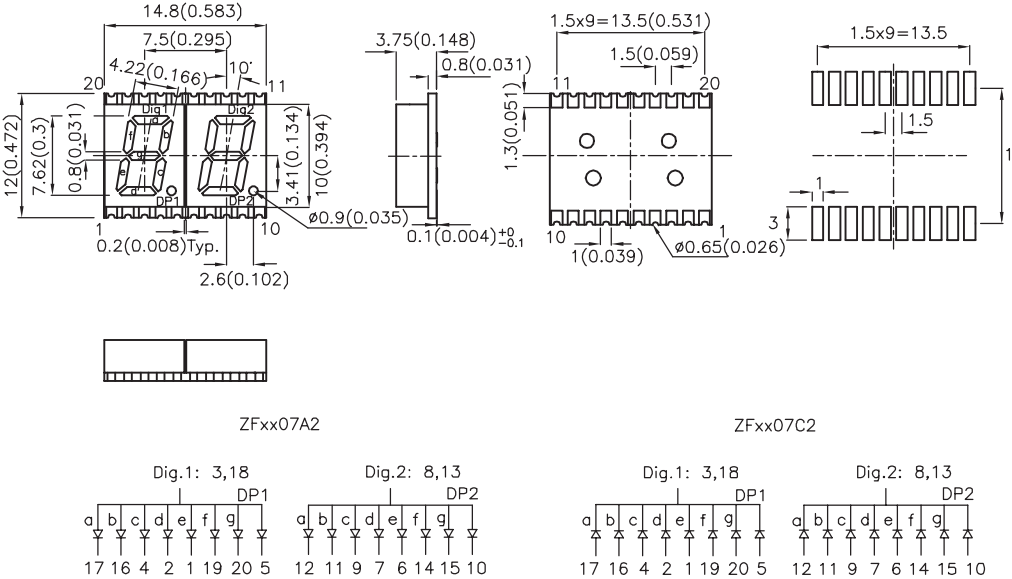



ZFxx05A2      ZFxx05C2

Dig.1:3,18      Dig.2:8,13      DP1      DP2      Dig.1:3,18      Dig.2:8,13      DP1      DP2

|           |           |                   |     |      |       |
|-----------|-----------|-------------------|-----|------|-------|
| ZFMDK05A2 | ZFMDK05C2 | ◆ AlGaInP(Red)    | 645 | 3600 | 8090  |
| ZFUR05A2  | -         | ◆ GaAsP/GaP(Red)  | 627 | 360  | 940   |
| ZFMYK05A2 | -         | ◆ AlGaInP(Yellow) | 590 | 5600 | 14990 |
| ZFVG05A2  | ZFVG05C2  | ◆ AlGaInP(Green)  | 574 | 2200 | 4290  |

**0.3"(7.62mm)**

ZFxx07A2      ZFxx07C2

Dig.1: 3,18      Dig.2: 8,13      DP1      DP2      Dig.1: 3,18      Dig.2: 8,13      DP1      DP2

|           |           |                   |     |      |       |
|-----------|-----------|-------------------|-----|------|-------|
| ZFMDK07A2 | ZFMDK07C2 | ◆ AlGaInP(Red)    | 645 | 3600 | 6390  |
| -         | ZFUR07C2  | ◆ GaAsP/GaP(Red)  | 627 | 360  | 690   |
| ZFMOK07A2 | -         | ◆ AlGaInP(Orange) | 610 | 5600 | 10990 |
| ZFVG07A2  | -         | ◆ AlGaInP(Green)  | 574 | 1400 | 3090  |
| ZFMG07A2  | -         | ◆ GaP(Green)      | 565 | 560  | 1190  |

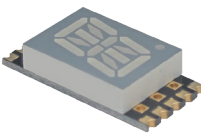
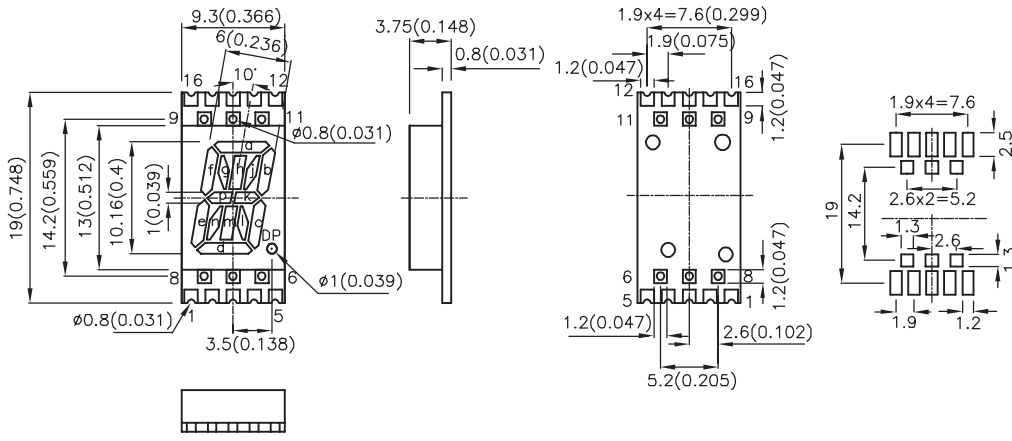
1. Dimension Unit: mm(inches), Tolerance:  $\pm 0.25mm$  (0.01").  
 2. Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.  
 3. We reserve the right to make changes at any time to enhance the design and / or performance of the product.





| Part Number  |                | Chip Structure<br>(Emitted Color) | $\lambda_{peak}$ (nm) | Intensity(ucd)<br>$I_f=10mA$ |      |
|--------------|----------------|-----------------------------------|-----------------------|------------------------------|------|
| Common Anode | Common Cathode |                                   |                       | Min.                         | Typ. |

**0.4"(10.16mm)**

ZFAxx10A 14  
a b c d e f g h j k l m n p DP  
10 11 6 7 8 16 9 15 13 12 4 3 2 1 5

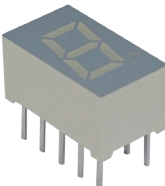
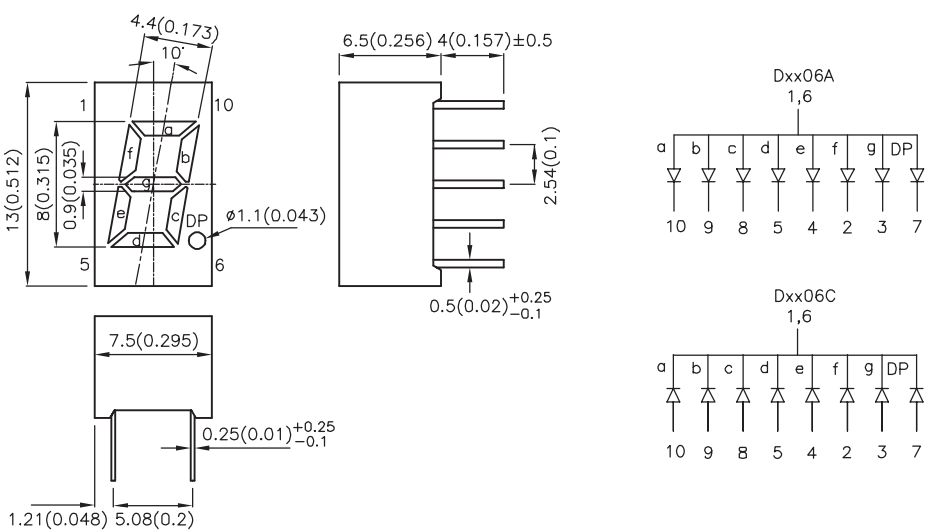
ZFAxx10C 14  
a b c d e f g h j k l m n p DP  
10 11 6 7 8 16 9 15 13 12 4 3 2 1 5

|           |          |                  |     |      |      |
|-----------|----------|------------------|-----|------|------|
| ZFAMR10A  | -        | ◆ GaAlAs(Red)    | 655 | 1400 | 2790 |
| ZFAVG10A  | ZFAVG10C | ◆ AlGaInP(Green) | 574 | 1400 | 3090 |
| ZFAMG10A  | -        | ◆ GaP(Green)     | 565 | 360  | 890  |
| ZFABBA10A | -        | ◆ InGaN(Blue)    | 468 | 2200 | 5790 |

**SINGLE DIGIT**

| Part Number  |                | Chip Structure<br>(Emitted Color) | $\lambda_{peak}$ (nm) | Intensity(ucd)<br>$I_f=10mA$ |      |
|--------------|----------------|-----------------------------------|-----------------------|------------------------------|------|
| Common Anode | Common Cathode |                                   |                       | Min.                         | Typ. |

**0.32"(8mm)**

Dxx06A 1,6  
a b c d e f g DP  
10 9 8 5 4 2 3 7

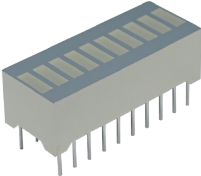
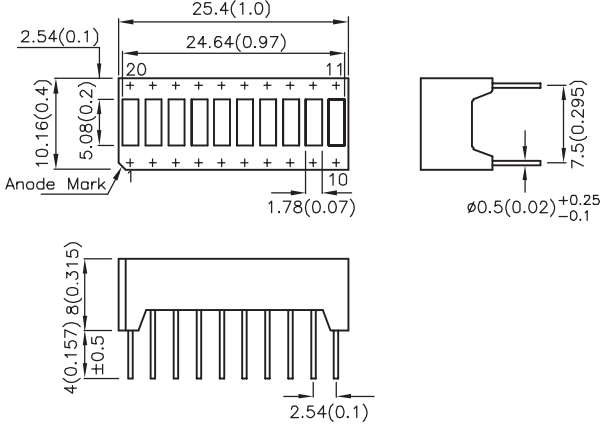
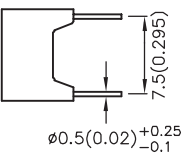
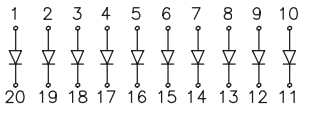
Dxx06C 1,6  
a b c d e f g DP  
10 9 8 5 4 2 3 7

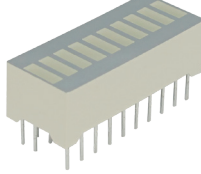
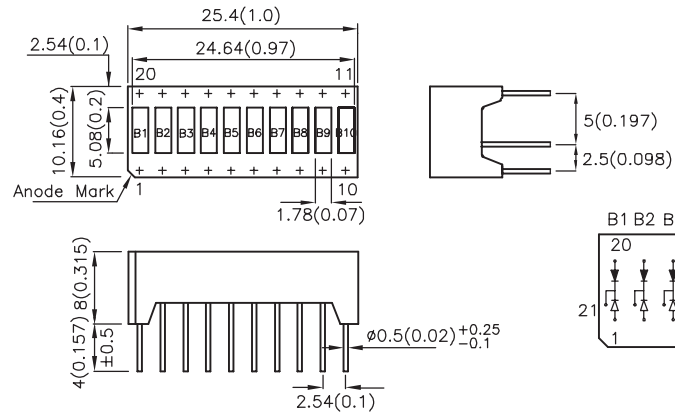
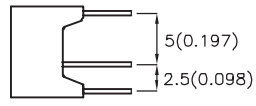
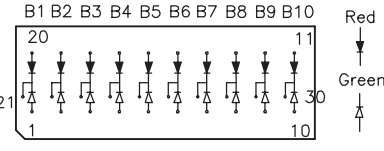
|        |        |                  |     |      |      |
|--------|--------|------------------|-----|------|------|
| DMR06A | DMR06C | ◆ GaAlAs(Red)    | 655 | 5600 | 9990 |
| DUR06A | -      | ◆ GaAsP/GaP(Red) | 627 | 1400 | 3290 |
| DUG06A | -      | ◆ GaP(Green)     | 565 | 1400 | 2490 |

1. Dimension Unit: mm(inches), Tolerance:  $\pm 0.25mm$  (0.01").  
 2. Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.  
 3. We reserve the right to make changes at any time to enhance the design and / or performance of the product.


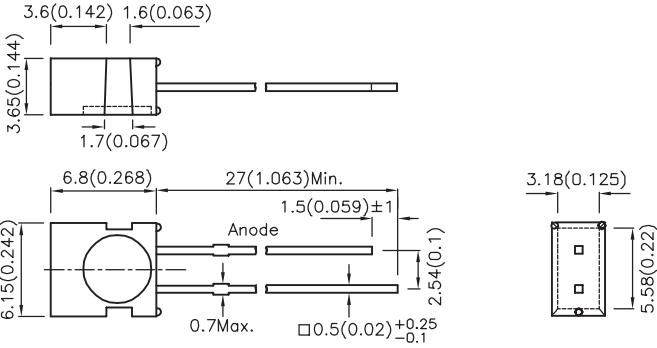
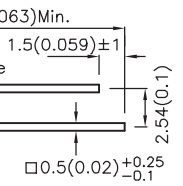


# BAR GRAPH ARRAY

| Part Number   | Chip Structure<br>(Emitted Color)  | $\lambda_{peak}$ (nm)  | Intensity(ucd)<br>$I_f=10mA$  |      |
|---|--|--|---|------|
|   |  |  | Min.  | Typ. |
| <b>10 Segment</b>   |  |  |   |      |
|  |  |  |  |      |
| GMRX10D   | ◆ GaAlAs(Red)  | 655  | 3600  | 7990 |
| GURX10D   | ◆ GaAsP/GaP(Red)   | 627  | 900   | 1990 |
| GUYX10D   | ◆ GaAsP/GaP(Yellow)  | 590  | 900   | 2390 |
| GUGX10D   | ◆ GaP(Green)   | 565  | 1400  | 3990 |

|   |   |  |   |      |
|---|---|--|---|------|
| <b>10 Segment (Bi-Color)</b>  |   |  |   |      |
|  |  |  |  |      |
| GURUGX10D   | ◆ GaAsP/GaP(Red)  | 627  | 900   | 1990 |
|   | ◆ GaP(Green)  | 565  | 1400  | 3990 |

# LIGHT BAR

| Part Number   | Chip Structure<br>(Emitted Color)  | $\lambda_{peak}$ (nm)  | Intensity(mcd)<br>$I_f=10mA$ |      | Viewing Angle<br>2 $\theta$ 1/2 | Lens            |
|---|--|--|------------------------------|------|---------------------------------|-----------------|
|   |  |  | Min.                         | Typ. |                                 |                 |
| <b>3.65x6.15mm</b>  |  |  |                              |      |                                 |                 |
|  |  |  |                              |      |                                 |                 |
| EUR21D  | ◆ GaAsP/GaP(Red)   | 627  | 2                            | 3.8  | 140°                            | Red Diffused    |
| EUY21D  | ◆ GaAsP/GaP(Yellow)  | 590  | 2                            | 4.8  | 140°                            | Yellow Diffused |
| EUG21D  | ◆ GaP(Green)   | 565  | 2                            | 5    | 140°                            | Green Diffused  |

1. Dimension Unit: mm(inches), Tolerance: ±0.25mm (0.01").  
 2. Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.  
 3. We reserve the right to make changes at any time to enhance the design and / or performance of the product.

LED DISPLAYS  
BAR GRAPH ARRAY | LIGHT BAR