

**Features:**

- 20.3mm (0.80") Dual digit numeric display series.
- Ultra brightness.
- Low current operation.
- Excellent character appearance.
- Easy mounting on P.C.boards or sockets.
- I.C.compatible.

**Part No.:**

| Common Cathode  | Iv TYP.(mcd) | Common Anode    | Iv TYP.(mcd) |
|-----------------|--------------|-----------------|--------------|
| EYD-8021EUHR-XX | 112          | EYD-8021FUHR-XX | 112          |
| EYD-8021EUE-XX  | 112          | EYD-8021FUE-XX  | 112          |
| EYD-8021EYO-XX  | 112          | EYD-8021FYO-XX  | 112          |
| EYD-8021EUY-XX  | 112          | EYD-8021FUY-XX  | 112          |
| EYD-8021EUG-XX  | 80           | EYD-8021FUG-XX  | 80           |
| EYD-8021EPG-XX  | 80           | EYD-8021FPG-XX  | 80           |
| EYD-8021EB-XX   | 80           | EYD-8021FB-XX   | 80           |
| EYD-8021EW-XX   | 80           | EYD-8021FW-XX   | 80           |

**Description:**

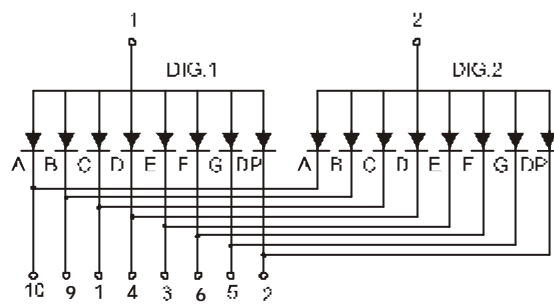
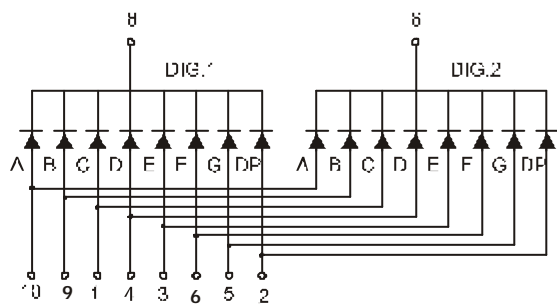
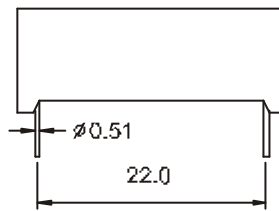
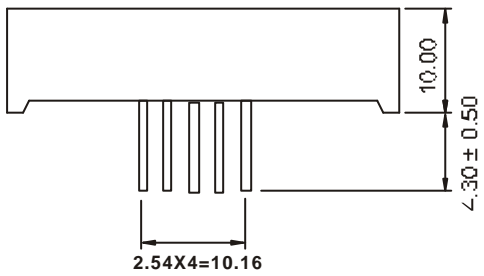
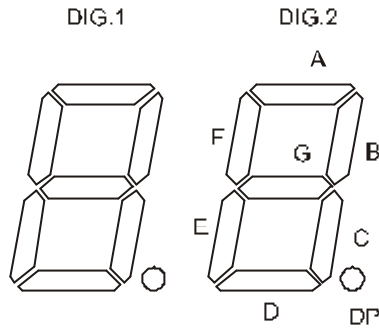
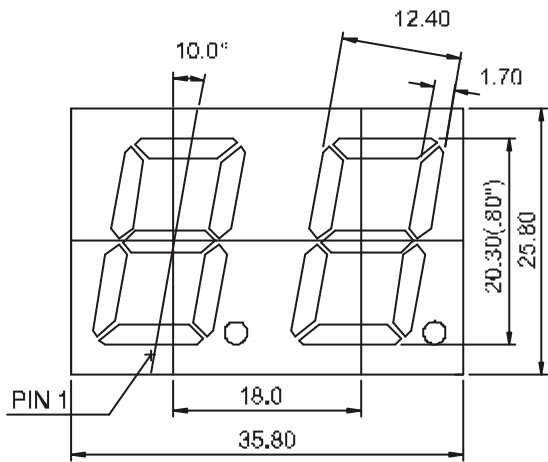
- Color Code & Chip characteristics: (Test Condition: IF=20mA)

| Emitting Color | Dice Material    | Peak Wave Length( $I_P$ ) (nm) | Spectral Line halfwidth( $I_{1/2}$ ) | Forward Voltage(VF) Unit:V |      | Luminous Intensity (Iv) Unit:ucd |      |
|----------------|------------------|--------------------------------|--------------------------------------|----------------------------|------|----------------------------------|------|
|                |                  |                                |                                      | Typ                        | Max  |                                  |      |
| UHR            | Ultra Hi Red     | AlGaInP                        | 645nm                                | 20nm                       | 2.10 | 2.50                             | 7000 |
| UE             | Ultra Orange     | AlGaInP                        | 630nm                                | 20nm                       | 2.10 | 2.50                             | 7000 |
| YO             | Ultra Amber      | AlGaInP                        | 610nm                                | 20nm                       | 2.10 | 2.50                             | 7000 |
| UY             | Ultra Yellow     | AlGaInP                        | 590nm                                | 20nm                       | 2.10 | 2.50                             | 7000 |
| UG             | Ultra Green      | AlGaInP                        | 574nm                                | 30nm                       | 2.20 | 2.50                             | 5000 |
| PG             | Ultra Pure Green | AlGaInP                        | 525nm                                | 36nm                       | 3.80 | 4.50                             | 5000 |
| B              | Blue             | InGaN                          | 430nm                                | 30nm                       | 3.80 | 4.50                             | 5000 |
| W              | White            | InGaN                          | -                                    | -                          | 3.80 | 4.50                             | 5000 |

- -XX: Surface / Lens color :

| Number            | 0           | 1              | 2            | 3              | 4               | 5 |
|-------------------|-------------|----------------|--------------|----------------|-----------------|---|
| Ref Surface Color | White       | Black          | Gray         | Red            | Green           |   |
| Epoxy Color       | Water clear | White diffused | Red Diffused | Green Diffused | Yellow Diffused |   |

**Package configuration & Internal circuit diagram:**



**Notes:**

- All dimensions are in millimeters (inches)
- Tolerance is ±0.25(0.01") unless otherwise noted.
- Specifications are subject to change without notice.

**Electrical-optical characteristics: (Ta=25 )**

| Parameter                  | Symbol   | AlGaInP | InGaN | Unit |
|----------------------------|----------|---------|-------|------|
| Power Dissipation          | $P_{ad}$ | 75      | 120   | mW   |
| Peak Forward Current *     | $I_{pf}$ | 150     | 100   | mA   |
| Continuous Forward Current | $I_{af}$ | 30      | 30    | mA   |

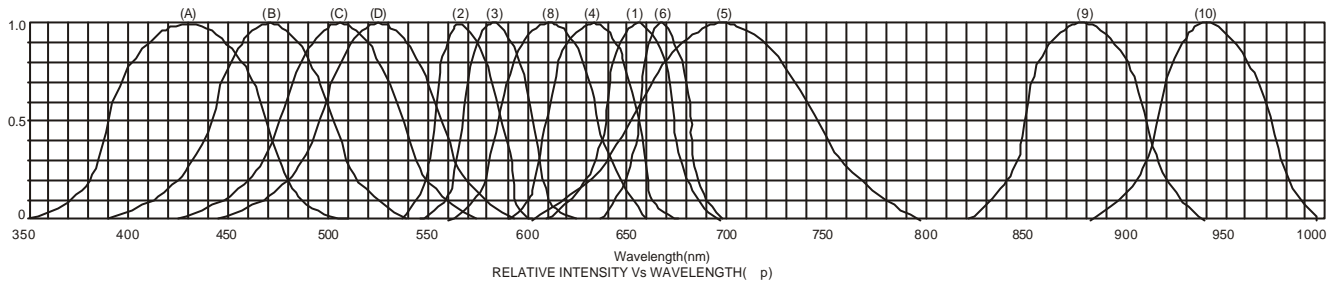
Notes:

- \* Test Condition = Duty 0.1,10KHZ

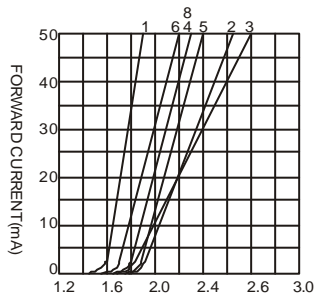
**Absolute maximum ratings (Ta=25 )**

|   |                   |
|---|-------------------|
| Reverse Voltage                                 | 5V                |
| Reverse Current                                 | 20 $\mu$ A        |
| Operating Temperature Range                     | -40 to+85         |
| Storage Temperature Range                       | -40 to+85         |
| Lead Solder Temperature (1.6mm(1/16")from body) | 230 for 5 Seconds |

**Typical electrical-optical characteristics curves:**



- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) - GaN/SiC 430nm/Blue
- (B) - InGaN/SiC 470nm/Blue
- (C) - InGaN/SiC 505nm/Ultra Green
- (D) - InGaAl/SiC 525nm/Ultra Green



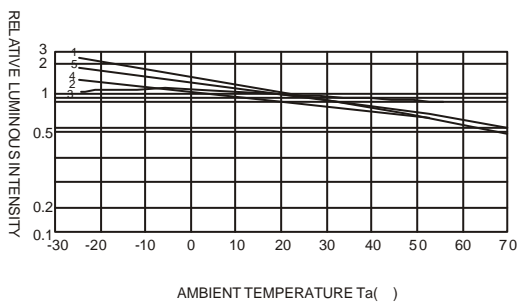
FORWARD VOLTAGE (V)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



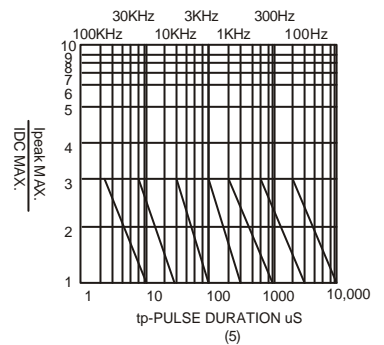
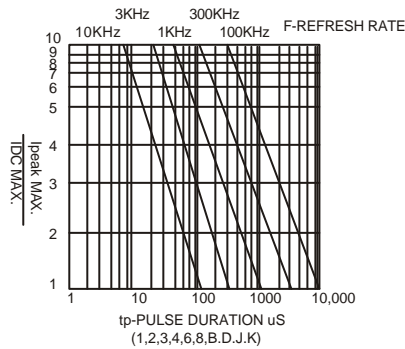
FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



AMBIENT TEMPERATURE  $T_a$  (  $^{\circ}$  )  
FORWARD CURRENT VS. AMBIENT  
TEMPERATURE



AMBIENT TEMPERATURE  $T_a$  (  $^{\circ}$  )



NOTE:25 free air temperature unless otherwise specified