

**Features:**

- 9.20mm (0.36")Four digit and Over numeric display series
- Standard 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) |
|----------------|--------------|----------------|--------------|
| EYQ-3641EH-XX  | 11.5         | EYQ-3641FH-XX  | 11.5         |
| EYQ-3641ES-XX  | 80.5         | EYQ-3641FS-XX  | 80.5         |
| EYQ-3641ED-XX  | 138          | EYQ-3641FD-XX  | 138          |
| EYQ-3641EUR-XX | 276          | EYQ-3641FUR-XX | 276          |
| EYQ-3641EE-XX  | 57.5         | EYQ-3641FE-XX  | 57.5         |
| EYQ-3641EY-XX  | 46           | EYQ-3641FY-XX  | 46           |
| EYQ-3641EG-XX  | 57.5         | EYQ-3641FG-XX  | 57.5         |

**Description:**

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

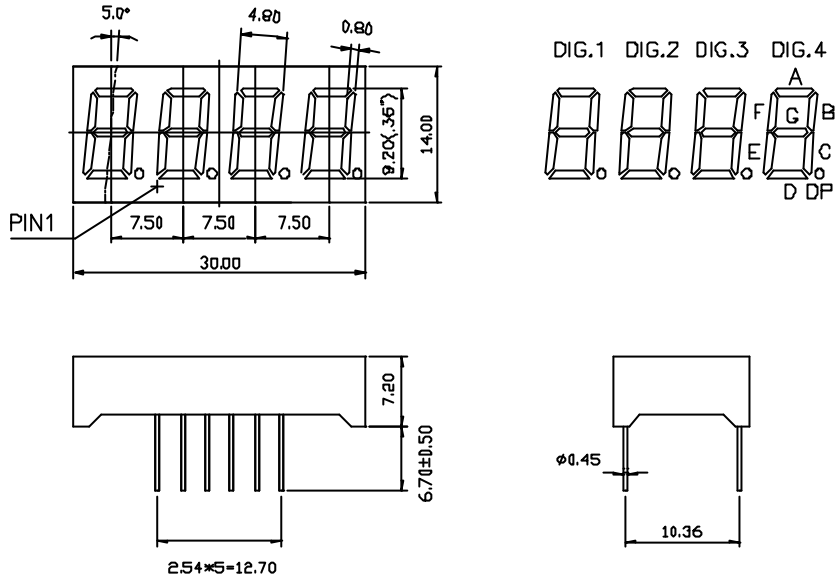
| Emitting Color |           | Dice Material       | Peak Wave Length (λ P) | Spectral Line halfwidth(λ 1/2) | Forward Voltage(VF) Unit:V |      | Luminous Intensity (Iv) Unit:ucd |
|----------------|-----------|---------------------|------------------------|--------------------------------|----------------------------|------|----------------------------------|
|                |           |                     |                        |                                | Typ                        | Max  |                                  |
| H              | Red       | GaP/GaP             | 700nm                  | 90nm                           | 2.25                       | 2.60 | 500                              |
| S              | Hi Red    | GaAlAs/GaAs,SH      | 660nm                  | 20nm                           | 1.85                       | 2.20 | 3500                             |
| D              | Super Red | GaAlAs/GaAs,DH      | 660nm                  | 20nm                           | 1.85                       | 2.20 | 6000                             |
| UR             | Ultra Red | GaAlAs/GaAs,DD<br>H | 660nm                  | 20nm                           | 1.85                       | 2.20 | 12000                            |
| E              | Orange    | GaAsP/GaP           | 635nm                  | 35nm                           | 2.10                       | 2.50 | 2500                             |
| Y              | Yellow    | GaAsP/GaP           | 585nm                  | 35nm                           | 2.10                       | 2.50 | 2000                             |
| G              | Green     | GaP/GaP             | 570nm                  | 30nm                           | 2.20                       | 2.50 | 2500                             |

- -XX: Surface / Lens color :

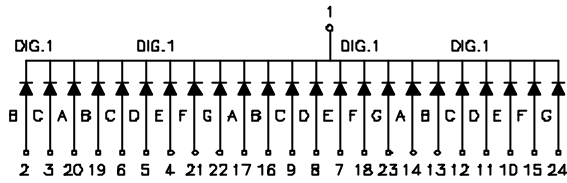
| Number            | 0           | 1              | 2            | 3              | 4               | 5 |
|-------------------|-------------|----------------|--------------|----------------|-----------------|---|
| Ref Surface Color | White       | Black          | Gray         | Red            | Green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

Package configuration & Internal circuit diagram:

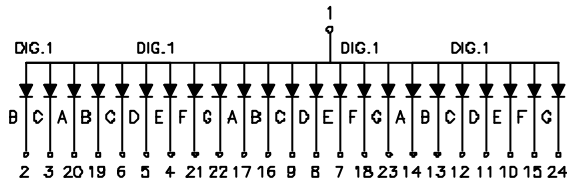
Q-3641 Series



Q-3641Ex



Q-3641Fx



Notes:

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

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

| Parameter                  | Symbol   | GaP(Red) | AlGaAs | GaAsP | GaP(Green) | Unit |
|----------------------------|----------|----------|--------|-------|------------|------|
| Power Dissipation          | $P_{ad}$ | 40       | 60     | 80    | 80         | mW   |
| Peak Forward Current *     | $I_{pf}$ | 50       | 150    | 150   | 150        | mA   |
| Continuous Forward Current | $I_{af}$ | 15       | 25     | 30    | 30         | mA   |

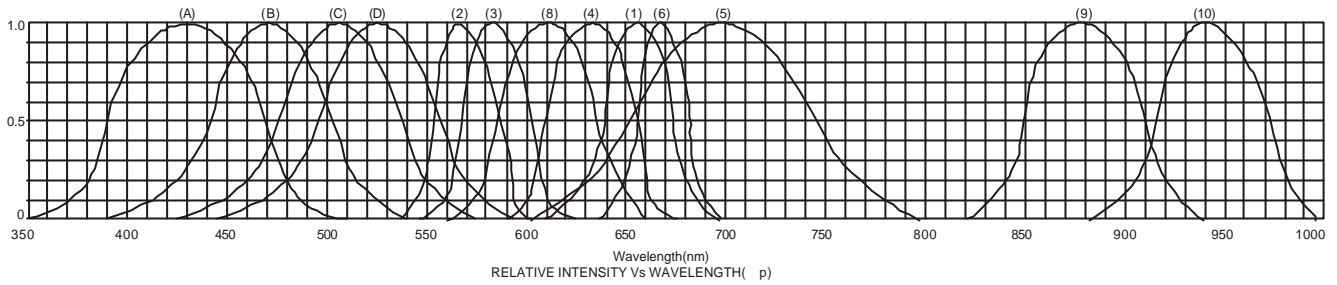
Notes:

- \* Test Condition = Duty 0.1,10KHZ

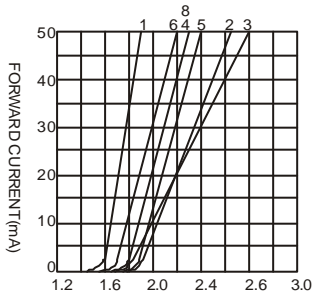
**Absolute maximum ratings (Ta=25 )**

|   |                   |
|---|-------------------|
| 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 |

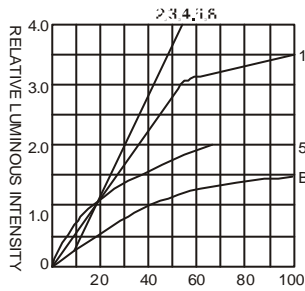
Typical electrical-optical characteristics curves:



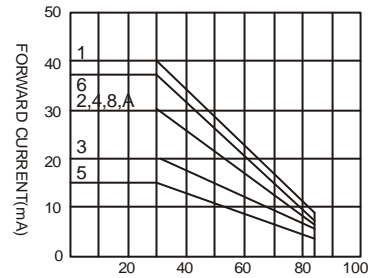
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



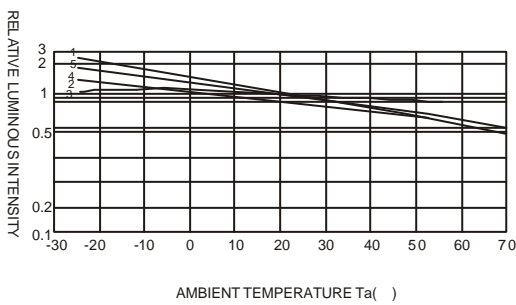
FORWARD VOLTAGE (Vf)  
FORWARD CURRENT VS.  
FORWARD VOLTAGE



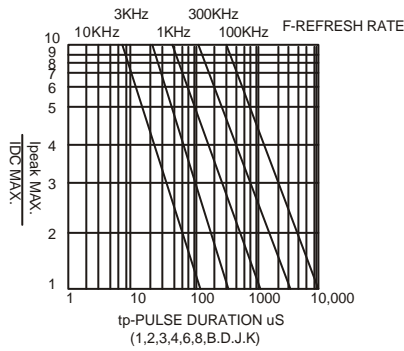
FORWARD CURRENT (mA)  
RELATIVE LUMINOUS  
INTENSITY VS. FORWARD  
CURRENT



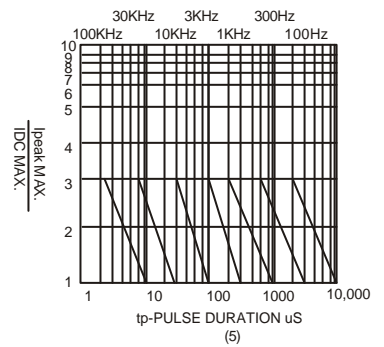
AMBIENT TEMPERATURE Ta( °C)  
FORWARD CURRENT VS. AMBIENT  
TEMPERATURE



AMBIENT TEMPERATURE Ta( °C)



tp-PULSE DURATION  $\mu$ s  
(1,2,3,4,6,8,B,D,J,K)



tp-PULSE DURATION  $\mu$ s  
(5)

NOTE:25 free air temperature unless otherwise specified