

Features:

- 10.0mm (0.39") Single 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) |
|-----------------|--------------|-----------------|--------------|
| FYS-3912AUHR-XX | 56 | FYS-3912BUHR-XX | 56 |
| FYS-3912AUE-XX | 56 | FYS-3912BUE-XX | 56 |
| FYS-3912AYO-XX | 56 | FYS-3912BYO-XX | 56 |
| FYS-3912AUY-XX | 56 | FYS-3912BUY-XX | 56 |
| FYS-3912AUG-XX | 40 | FYS-3912BUG-XX | 40 |
| FYS-3912APG-XX | 40 | FYS-3912BPG-XX | 40 |
| FYS-3912AB-XX | 40 | FYS-3912BB-XX | 40 |
| FYS-3912AW-XX | 40 | FYS-3912BW-XX | 40 |

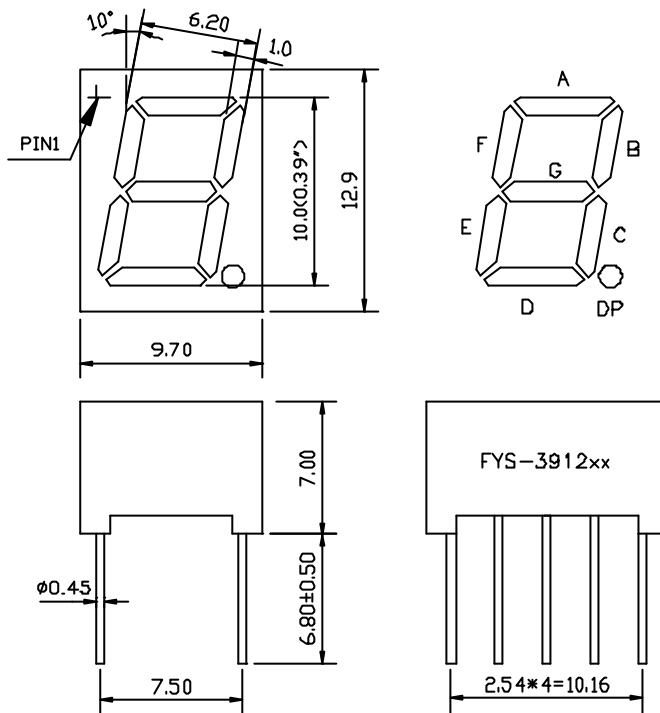
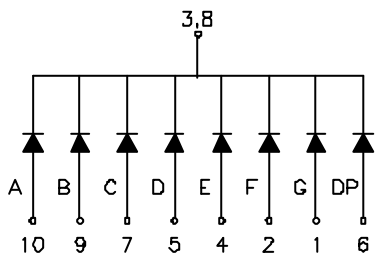
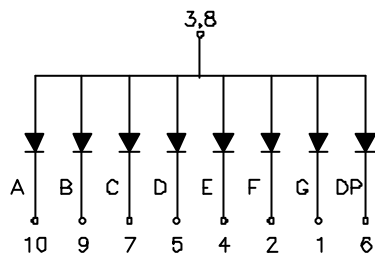
Description:

- 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 | |
| UH R | 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:
FYS-3912 Series

FYS-3912Ax

FYS-3912Bx

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 | 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 |

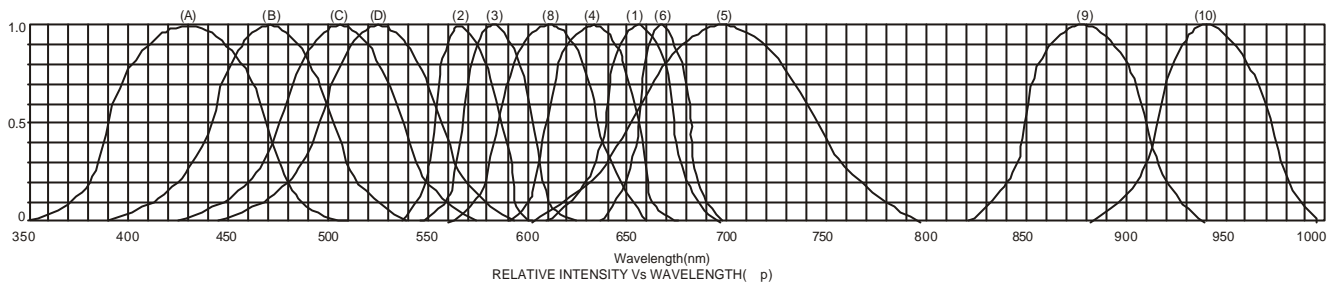
Notes:

- * Test Condition = Duty 0.1,10KHZ

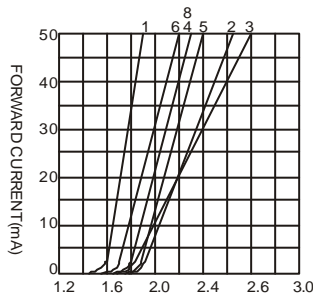
Absolute maximum ratings (Ta=25)

| | |
|-------------------------------------------------|-------------------|
| Reverse Voltage | 5V |
| Reverse Current | 20 μ 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 |

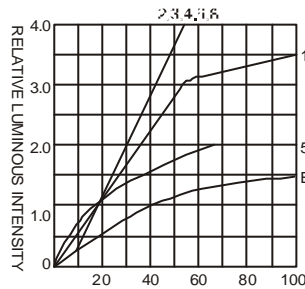
Typical electrical-optical characteristics curves:



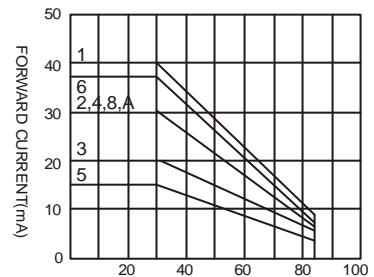
- (1) - GaAsP/GaAs 655nm/Red
- (2) - GaP 570nm/Yellow Green
- (3) - GaAsP/GaP 585nm/Yellow
- (4) - GaAsP/GaP 635nm/Orange & Hi-Eff Red
- (5) - GaP 700nm/Bright Red
- (6) - GaAlAs/GaAs 660nm/Super Red
- (8) - GaAsP/GaP 610nm/Super Red
- (9) - GaAlAs 880nm
- (10) - GaAs/GaAs & GaAlAs/GaAs 940nm
- (A) -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



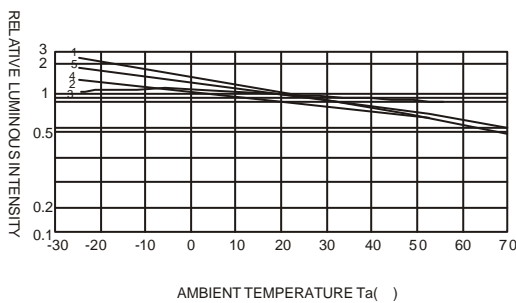
FORWARD VOLTAGE (Vf)
FORWARD CURRENT VS.
FORWARD VOLTAGE



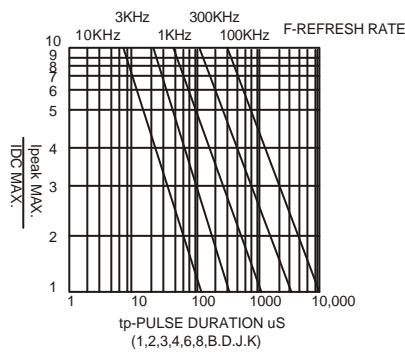
FORWARD CURRENT (mA)
RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



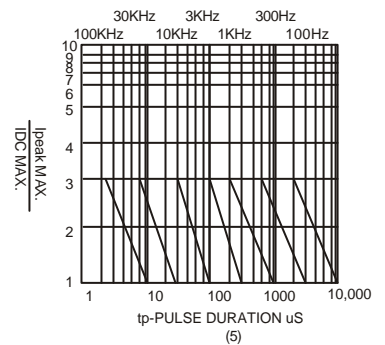
AMBIENT TEMPERATURE Ta()
FORWARD CURRENT VS. AMBIENT
TEMPERATURE



AMBIENT TEMPERATURE Ta()



tp-PULSE DURATION µS
(1,2,3,4,6,8,B,D,J,K)



(5)

NOTE:25 free air temperature unless otherwise specified