

**DESCRIPTION:**

The KW1-801 series is large single digit display in 0.80 inch (20.32mm) height, designed for accurate readable displays need to be viewed over a distance. Both left & right DPs are available.

This series is suitable for use in instruments, digital readout displays.

All devices are available as either common anode or common cathode.

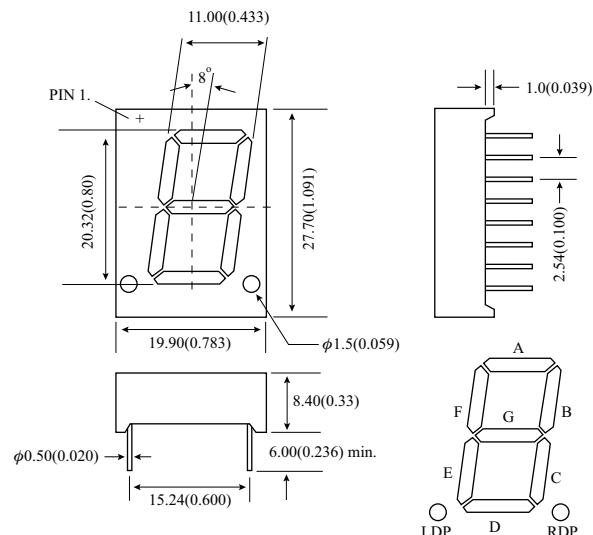
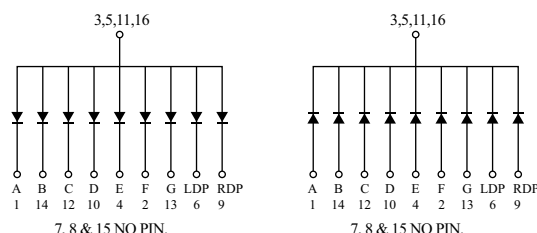
**ABSOLUTE MAXIMUM RATINGS: (Ta=25°C)**

| Parameter                                                        | Max            |
|------------------------------------------------------------------|----------------|
| Reverse Voltage per segment                                      | 5 V            |
| Reverse Current per segment (Vr = 5V)                            | 100μA          |
| Derating Linear from 25°C per segment                            | 0.4mA/°C       |
| Operating Temperature Range                                      | -40°C To 85°C  |
| Storage Temperature Range                                        | -40°C To 100°C |
| Soldering Temperature 1.6mm(1/16") from body for 5 sec. at 260°C |                |

NOTES : 1. All dimensions are in millimeters (inches).  
 2. Tolerance is  $\pm 0.25\text{mm}(0.010)$  unless otherwise specified.  
 3. Specifications are subject to change without notice.  
 4. NP: No Pin.  
 5. NC: No Connect.

**TESTING CONDITION FOR EACH PARAMETER :**

| Parameter                  | Symbol          | Unit | Test Condition |
|----------------------------|-----------------|------|----------------|
| Forward Voltage            | Vf              | V    | If=20mA        |
| Peak Emission Wave Length  | $\lambda_p$     | nm   | If=20mA        |
| Spectral Line Half-Width   | $\Delta\lambda$ | nm   | If=20mA        |
| Reverse Current            | Ir              | μA   | Vr=5V          |
| Average Luminous Intensity | Iv              | μ cd | If=10mA        |

**PACKAGE DIMENSIONS**

**INTERNAL CIRCUIT DIAGRAM**

**PART NO. SELECTION AND APPLICATION INFORMATION (RATINGS AT 25°C AMBIENT)**

| Part No.  | Chip            |                  | C.C<br>or<br>C.A  | Wave<br>Length<br>$\lambda_p$ (nm) | Absolute Maximum Ratings |            |            |                      | Electro-optical Data(at 10mA) |      |      |                   |                               |       |
|-----------|-----------------|------------------|-------------------|------------------------------------|--------------------------|------------|------------|----------------------|-------------------------------|------|------|-------------------|-------------------------------|-------|
|           | Raw<br>Material | Emitted<br>Color |                   |                                    | $\Delta\lambda$<br>(nm)  | Pd<br>(mW) | If<br>(mA) | If<br>(Peak)<br>(mA) | Vf (V)<br>Per Segment         |      |      | If<br>(Rec)<br>mA | Iv ( $\mu$ cd)<br>Per Segment |       |
|           |                 |                  |                   |                                    |                          |            |            |                      | Min.                          | Typ. | Max. |                   | Min.                          | Typ.  |
| KW1-801A3 | GaAsP/GaP       | Hi-Eff. Red      | Common<br>Anode   | 635                                | 45                       | 100        | 50         | 100                  | 1.7                           | 1.9  | 2.6  | 10-20             | 750                           | 2000  |
| KW1-801AS | GaAlAs          | Super Red        |                   | 660                                | 20                       | 100        | 50         | 100                  | 1.5                           | 1.9  | 2.6  | 10-20             | 5600                          | 21000 |
| KW1-801A2 | GaP             | Green            |                   | 565                                | 30                       | 100        | 50         | 100                  | 1.7                           | 2.2  | 2.6  | 10-20             | 750                           | 2000  |
| KW1-801AG | GaP             | Super Green      |                   | 570                                | 30                       | 100        | 50         | 100                  | 1.7                           | 2.2  | 2.6  | 10-20             | 850                           | 2200  |
| KW1-801A6 | GaAsP/GaP       | Yellow           |                   | 585                                | 30                       | 100        | 50         | 100                  | 1.7                           | 1.9  | 2.6  | 10-20             | 700                           | 1600  |
| KW1-801C3 | GaAsP/GaP       | Hi-Eff Red       | Common<br>Cathode | 635                                | 45                       | 100        | 50         | 100                  | 1.7                           | 1.9  | 2.6  | 10-20             | 750                           | 2000  |
| KW1-801CS | GaAlAs          | Super Red        |                   | 660                                | 20                       | 100        | 50         | 100                  | 1.5                           | 1.9  | 2.6  | 10-20             | 5600                          | 21000 |
| KW1-801C2 | GaP             | Green            |                   | 565                                | 30                       | 100        | 50         | 100                  | 1.7                           | 2.2  | 2.6  | 10-20             | 750                           | 2000  |
| KW1-801CG | GaP             | Super Green      |                   | 570                                | 30                       | 100        | 50         | 100                  | 1.7                           | 2.2  | 2.6  | 10-20             | 850                           | 2200  |
| KW1-801C6 | GaAsP/GaP       | Yellow           |                   | 585                                | 30                       | 100        | 50         | 100                  | 1.7                           | 1.9  | 2.6  | 10-20             | 700                           | 1600  |

REMARKS : 1. The average luminous intensity is obtained by summing the luminous intensity of each segment and dividing by the total number of segments.  
 2. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (International Commission on Illumination) eye-response curve.  
 3. Clean only by pure water, isopropanol, ethanol, Freon TF (or equivalent).