# High efficiency, single-digit numeric displays

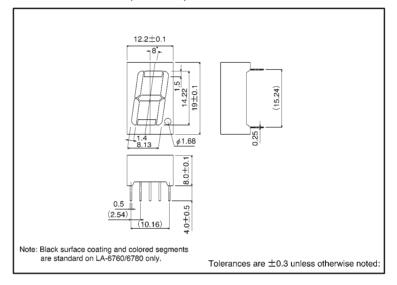
# LA-6000 Series

The LA-6000 series are LED numeric displays designed to be used in bright locations. Red, orange, yellow and green are available, and they are suitable for use in a wide range of applications.

#### Features

- 1) Height of character: 14.22 mm.
- Common anode and common cathode configurations are available for each color.
- Each segment has independent pin connections making static drive possible.
- 4) High efficiency reflectors are used to achieve a bright, clear display.
- The package surface is painted gray and the segments are milky white.

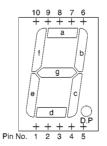
#### External dimensions (Units: mm)



#### Selection guide

| Emitting color Common | Red     | Orange  | Yellow  | Green   |
|-----------------------|---------|---------|---------|---------|
| Anode                 | LA-6760 | LA-6660 | LA-6860 | LA-6460 |
| Cathode               | LA-6780 | LA-6680 | LA-6880 | LA-6480 |

#### Pin assignments

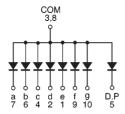


| Pin No. | Function    |  |  |  |
|---------|-------------|--|--|--|
| 1       | Segment "e" |  |  |  |
| 2       | Segment "d" |  |  |  |
| 3       | Common      |  |  |  |
| 4       | Segment "c" |  |  |  |
| 5       | D.P         |  |  |  |
| 6       | Segment "b" |  |  |  |
| 7       | Segment "a" |  |  |  |
| 8       | Common      |  |  |  |
| 9       | Segment "f" |  |  |  |
| 10      | Segment "g" |  |  |  |



LED displays LA-6000 Series

# ●Internal circuit schematic (example of common anode)



# ●Absolute maximum ratings (Ta = 25°C)

| Parameter             | Cymbol  | Red            | Orange                                       | Yellow | Green          | Unit |  |
|-----------------------|---------|----------------|--|--------|----------------|------|--|
|                       | Symbol  | LB-6710 / 6740 | _B-6710 / 6740 LB-6610 / 6640 LB-6810 / 6840 |        | LB-6410 / 6440 |      |  |
| Power dissipation     | Pp      | 960            | 960  | 960    | 960            | mW   |  |
| Power dissipation     | P⊳/ seg | 60             | 60   | 60     | 60             | mW   |  |
| Forward current       | lf      | 20             | 20   | 20     | 20             | mA   |  |
| Peak forward current  | IFP     | 60*            | 60*  | 60*    | 60*            | mA   |  |
| Reverse voltage       | VR      | 5              | 5  | 5      | 5              | V    |  |
| Operating temperature | Topr    |                | °C   |        |                |      |  |
| Storage temperature   | Tstg    |                | °C   |        |                |      |  |

<sup>\*</sup> Pulse width 1ms duty 1 / 5

# ●Electrical and optical characteristics (Ta = 25°C)

| Parameter Symbol         | Symbol     | Conditions         | Red  |      | Orange |      |      | Yellow |      |      | Green |      |      | Unit  |    |
|--------------------------|------------|--------------------|------|------|--------|------|------|--------|------|------|-------|------|------|-------|----|
|                          | Conditions | Min.               | Тур. | Max. | Min.   | Тур. | Max. | Min.   | Тур. | Max. | Min.  | Тур. | Max. | Offic |    |
| Forward voltage          | VF         | I=10mA             | _    | 2.0  | 2.8    | _    | 2.0  | 2.8    | _    | 2.1  | 2.8   | _    | 2.1  | 2.8   | V  |
| Reverse current          | lR         | V <sub>R</sub> =5V | _    | _    | 100    | _    | _    | 100    | _    | _    | 100   | _    | _    | 100   | μΑ |
| Peak wavelength          | λP         | I=10mA             | _    | 650  | -      | _    | 610  | _      | _    | 585  | _     | _    | 563  | _     | nm |
| Spectral line half width | Δλ         | I=10mA             | _    | 40   | _      | _    | 40   | _      | _    | 40   | _     | _    | 40   | _     | nm |

ONot designed for radiation resistance.

### Luminous intensity

| Color  | λР  | Туре    | Min. | Тур. | Max. | Unit  |
|--------|-----|---------|------|------|------|-------|
| Red    | 650 | LA-6760 | 3.6  | 10   |      | mcd   |
|        | 050 | LA-6780 | 3.0  |      |      | IIICU |
| Orange | 610 | LA-6660 | 3.6  | 10   | _    | mcd   |
|        | 010 | LA-6680 | 3.0  |      |      |       |
| Yellow | 585 | LA-6860 | 3.6  | 10   | _    | mcd   |
|        |     | LA-6880 | 3.0  | 10   |      | mou   |
| Green  | 563 | LA-6460 | 9    | 25   | _    | mcd   |
|        | 303 | LA-6480 | 9    | 25   |      | IIICG |

Note: Measured at IF = 10 mA