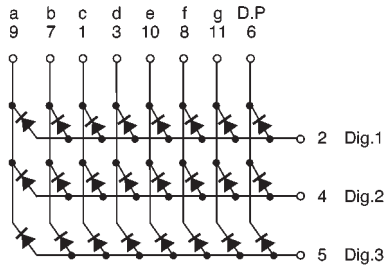




● Internal circuit schematic (example of common anode)



● Absolute maximum ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter             | Symbol             | Red           | Orange        | Green         | Unit             |
|-----------------------|--------------------|---------------|---------------|---------------|------------------|
|                       |                    | LB-303VA / VK | LB-303DA / DK | LB-303MA / MK |                  |
| Power dissipation     | $P_D$              | 960           | 960           | 1440          | mW               |
| Power dissipation     | $P_D / \text{seg}$ | 40            | 40            | 60            | mW               |
| Forward current       | $I_F$              | 15            | 15            | 20            | mA               |
| Peak forward current  | $I_{FP}$           | 60*           | 60*           | 60*           | mA               |
| Reverse voltage       | $V_R$              | 3             | 3             | 3             | V                |
| Operating temperature | $T_{opr}$          | -25~+75       |               |               | $^\circ\text{C}$ |
| Storage temperature   | $T_{stg}$          | -30~+85       |               |               | $^\circ\text{C}$ |

\* Pulse width 1ms duty 1 / 5

● Electrical and optical characteristics ( $T_a = 25^\circ\text{C}$ )

| Parameter                | Symbol          | Conditions        | Red  |      |      | Orange |      |      | Green |      |      | Unit          |
|--------------------------|-----------------|-------------------|------|------|------|--------|------|------|-------|------|------|---------------|
|                          |                 |                   | Min. | Typ. | Max. | Min.   | Typ. | Max. | Min.  | Typ. | Max. |               |
| Forward voltage          | $V_F$           | $I_F=10\text{mA}$ | —    | 2.0  | 2.8  | —      | 2.0  | 2.8  | —     | 2.1  | 2.8  | V             |
| Reverse current          | $I_R$           | $V_R=3\text{V}$   | —    | —    | 100  | —      | —    | 100  | —     | —    | 100  | $\mu\text{A}$ |
| Peak wavelength          | $\lambda_P$     | $I_F=10\text{mA}$ | —    | 650  | —    | —      | 610  | —    | —     | 563  | —    | nm            |
| Spectral line half width | $\Delta\lambda$ | $I_F=10\text{mA}$ | —    | 40   | —    | —      | 40   | —    | —     | 40   | —    | nm            |

⊙ Not designed for radiation resistance.

● Luminous intensity

| Color  | $\lambda_P$ | Type     | Min. | Typ. | Max. | Unit |
|--------|-------------|----------|------|------|------|------|
| Red    | 650         | LB-303VA | 1.4  | 4.0  | —    | mcd  |
|        |             | LB-303VK |      |      |      |      |
| Orange | 610         | LB-303DA | 1.4  | 4.0  | —    | mcd  |
|        |             | LB-303DK |      |      |      |      |
| Green  | 563         | LB-303MA | 2.2  | 6.3  | —    | mcd  |
|        |             | LB-303MK |      |      |      |      |

Note: Measured at  $I_F = 10\text{mA}$