

The LB-602AK2 series of LED displays were designed for use in bright locations. The character height is 14.3mm and four colors are available : red, orange, yellow, and green.

- 1) Height or character : 14.3 mm
- 2) External dimensions :  $19 \times 25 \times 8.0$  mm.
- 3) Common anode and common cathode configurations are available for each color.
- 4) The package surface is painted black and the segments are colored the display color.
- 5) High luminance, clear display.

Technical drawing of a 10-pin connector. The drawing includes a top view, a side view, and a detail view of the pins.

**Top View Dimensions:**

- Overall width:  $25.0 \pm 0.1$
- Pin pitch:  $2.54$
- Pin width:  $1.3$
- Pin height:  $14.3$
- Overall height:  $19.0 \pm 0.1$
- Pin angle:  $10^\circ$
- Pin diameter:  $2 \times \phi 1.5$

**Side View Dimensions:**

- Pin height:  $15.24$
- Pin width:  $0.25$

**Detail View Dimensions:**

- Pin width:  $1.3$
- Pin height:  $8.0$
- Pin pitch:  $2.54$
- Pin height:  $3.5 \text{ Min.}$
- Pin width:  $8.0$
- Pin height:  $20.32$
- Pin width:  $0.5$

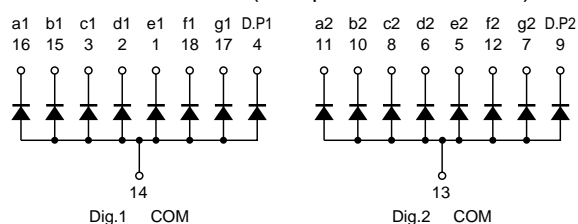
Tolerances are  $\pm 0.3$  unless otherwise noted:

Emitting color Common	Red	Orange	Yellow	Green
Anode	LB-602VA2	LB-602DA2*	LB-602YA2*	LB-602MA2
Cathode	LB-602VK2	LB-602DK2*	LB-602YK2*	LB-602MK2

Pin No.	Function	Pin No.	Function
1	Segment "e1"	10	Segment "b2"
2	Segment "d1"	11	Segment "a2"
3	Segment "c1"	12	Segment "f2"
4	D.P1	13	Digit 2 Common
5	Segment "e2"	14	Digit 1 Common
6	Segment "d2"	15	Segment "b1"
7	Segment "g2"	16	Segment "a1"
8	Segment "c2"	17	Segment "g1"
9	D.P2	18	Segment "f1"

## LED displays

## ● Internal circuit schematic (example of common anode)



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

Parameter	Symbol	Red	Orange	Yellow	Green	Unit
		LB-602VA2 / VK2	LB-602DA2 / DK2	LB-602YA2 / YK2	LB-602MA2 / MK2	
Power dissipation	$P_D$	960	960	960	960	mW
Power dissipation	$P_D / \text{seg}$	60	60	60	60	mW
Forward current	$I_F$	20	20	20	20	mA
Peak forward current	$I_{FP}$	60*	60*	60*	60*	mA
Reverse voltage	$V_R$	5	5	5	5	V
Operating temperature	$T_{opr}$	-25~+75				°C
Storage temperature	$T_{stg}$	-30~+85				°C

\* Pulse width 1ms duty 1 / 5

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

Parameter	Symbol	Conditions	Red			Orange			Yellow			Green			Unit
			Min.	Typ.	Max.	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	—	2.1	2.8	V
Reverse current	$I_R$	$V_R = 5\text{V}$	—	—	100	—	—	100	—	—	100	—	—	100	μA
Peak wavelength	$\lambda_P$	$I_F = 10\text{mA}$	—	650	—	—	610	—	—	585	—	—	563	—	nm
Spectral line half width	$\Delta\lambda$	$I_F = 10\text{mA}$	—	40	—	—	40	—	—	40	—	—	40	—	nm

© Not designed for radiation resistance.

## ● Luminous intensity

Color	$\lambda_P$	Type	Min.	Typ.	Max.	Unit
Red	650	LB-602VA2	5.6	16	—	mcd
		LB-602VK2				
Orange	610	LB-602DA2	3.6	10	—	mcd
		LB-602DK2				
Yellow	585	LB-602YA2	3.6	10	—	mcd
		LB-602YK2				
Green	563	LB-602MA2	9	25	—	mcd
		LB-602MK2				

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