

# High efficiency, two-digit numeric displays

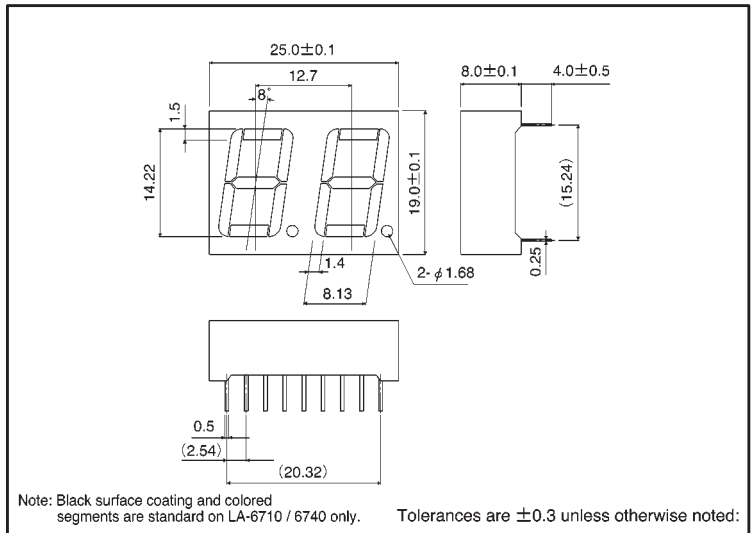
## LB-6000 Series

The LB-6000 series were designed to meet the need for multi-digit numeric displays. These LED numeric displays use GaAsP on GaP for the emitting material (with the exception of green) and are housed in an epoxy resin package. They are two-digit displays with a character height of 14.22 mm.

### ●Features

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

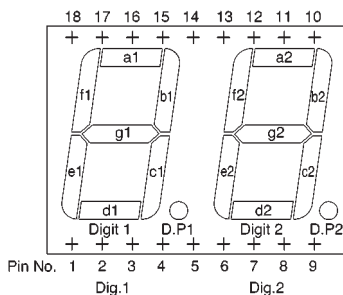
### ●External dimensions (Units: mm)



### ●Selection guide

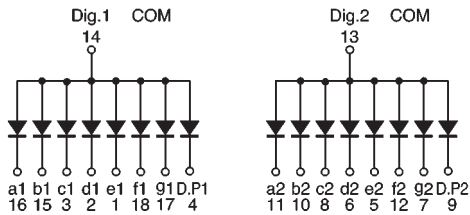
Emitting color	Red	Orange	Yellow	Green
	Common			
Anode	LB-6710	LB-6610	LB-6810	LB-6410
Cathode	LB-6740	LB-6640	LB-6840	LB-6440

### ●Pin assignments



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"

● Internal circuit schematic (example of common anode)



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

Parameter	Symbol	Red	Orange	Yellow	Green	Unit
		LB-6710 / 6740	LB-6610 / 6640	LB-6810 / 6840	LB-6410 / 6440	
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~+85				$^\circ\text{C}$
Storage temperature	$T_{stg}$	-30~+100				$^\circ\text{C}$

\* Pulse width 1ms duty 1 / 5

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

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	$\mu\text{A}$
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-6710	5.6	16	—	mcd
		LB-6740				
Orange	610	LB-6610	3.6	10	—	mcd
		LB-6640				
Yellow	585	LB-6810	3.6	10	—	mcd
		LB-6840				
Green	563	LB-6410	5.6	16	—	mcd
		LB-6440				

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