

# High efficiency, two-digit numeric displays

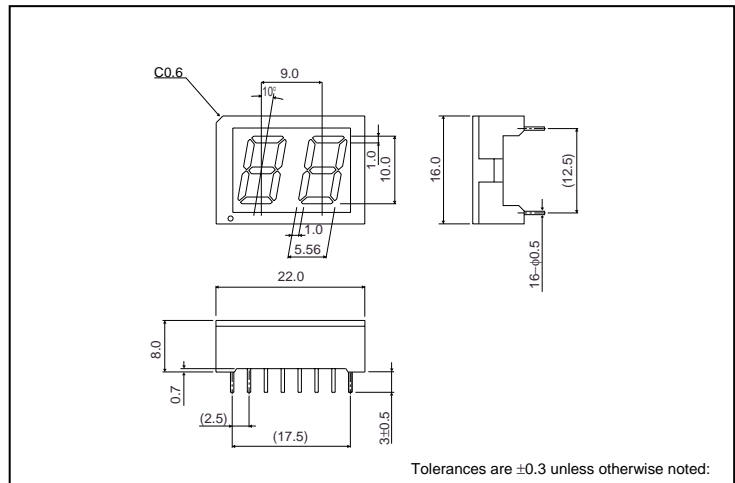
## LB-402FP Series

The LB-402FP series were designed to meet the need for multi-digit numeric displays. Featuring excellent visibility, these two-digit LED numeric displays have a character height of 10mm. A colored cover case is attached to the surface of the display.

### ●Features

- 1) Two colors are available: red and green.
- 2) Common anode and common cathode configurations are available.
- 3) Each segment has independent pin connections and making static drive is possible.
- 4) Excellent visibility.  
Uniform brightness.  
Wide view angle.  
Character shapes cannot be seen when not illuminated.

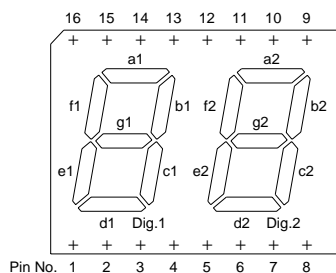
### ●External dimensions (Units : mm)



### ●Selection guide

Emitting color	Red	Green
Common		
Anode	LB-402VF	LB-402MF
Cathode	LB-402VP	LB-402MP

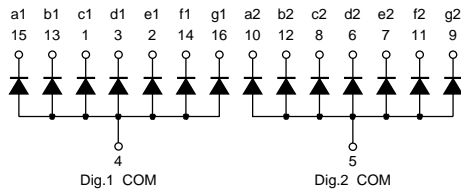
### ●Pin assignments



Pin No.	Function	Pin No.	Function
1	Segment "c1"	9	Segment "g2"
2	Segment "e1"	10	Segment "a2"
3	Segment "d1"	11	Segment "f2"
4	Digit1 Common	12	Segment "b2"
5	Digit2 Common	13	Segment "b1"
6	Segment "d2"	14	Segment "f1"
7	Segment "e2"	15	Segment "a1"
8	Segment "c2"	16	Segment "g1"

LED displays

● Internal circuit schematic (example of common anode)



● Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Red	Green	Unit
		LB-402VF / VP	LB-402MF / MP	
Power dissipation	P <sub>D</sub>	840	840	mA
Power dissipation	P <sub>D</sub> / seg	60	60	mW / seg
Forward current	I <sub>F</sub>	20	20	mA
Peak forward current	I <sub>FP</sub>	60	60	mA*
Reverse voltage	V <sub>R</sub>	5	5	V
Operating temperature	Topr	-25~+75		°C
Storage temperature	Tstg	-30~+85		°C

\* Pulse width 1ms duty 1 / 5

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

Parameter	Symbol	Conditions	Red			Green			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V <sub>F</sub>	I <sub>F</sub> = 10mA	-	2.0	2.8	-	2.1	2.8	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 3V	-	-	100	-	-	100	μA
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> = 10mA	-	650	-	-	563	-	nm
Spectral line half width	Δλ	I <sub>F</sub> = 10mA	-	40	-	-	40	-	nm

© Not designed for radiation resistance

● Luminous intensity

Color	λ <sub>P</sub>	Type	Min.	Typ.	Max.	Unit
Red	650	LB-402VF	2.2	5.6	-	mcd
		LB-402VP				
Green	563	LB-402MF	2.2	5.6	-	mcd
		LB-402MP				

Note : Measured at I<sub>F</sub> = 10mA