

# High efficiency, two-digit numeric displays

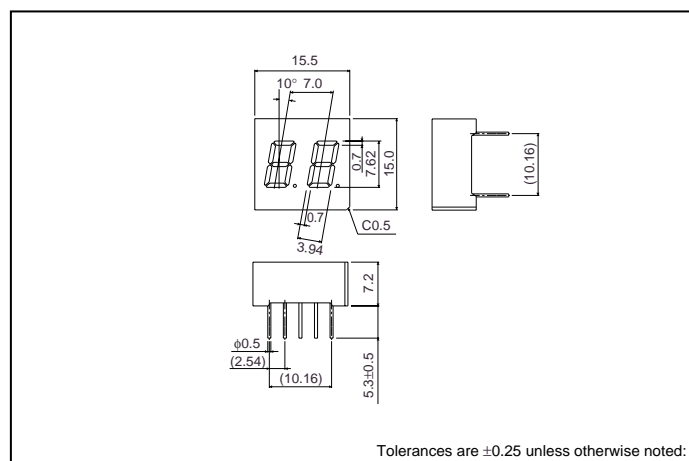
## LB-302FP Series

The LB-302FP series were designed to meet the need for multi-digit numeric displays. These two-digit LED numeric displays have a character height of 7.62 mm.

### ●Features

- 1) Height of character : 7.62 mm
- 2) High efficiency in a compact package.
- 3) Common anode and common cathode configurations are available for red, orange and green.
- 4) The package surface is painted black and the segments are milky white.

### ●External dimensions (Units : mm)

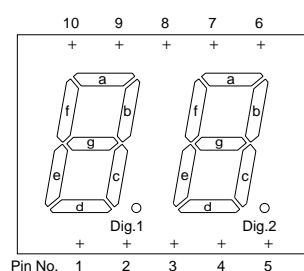


### ●Selection guide

Emitting color	Red	Orange	Green
Common			
Anode	LB-302VF	LB-302DF*	LB-302MF
Cathode	LB-302VP	LB-302DP*	LB-302MP

\*Order-based production.

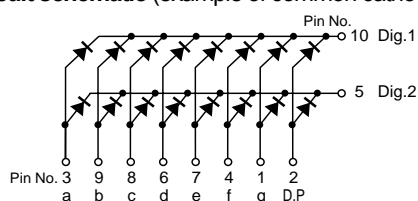
### ●Pin assignments



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

## LED displays

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



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

Parameter	Symbol	Red	Orange	Green	Unit
		LB-302VF / VP	LB-302DF / DP	LB-302MF / MP	
Power dissipation	$P_D$	800	800	960	mW
Power dissipation	$P_D / \text{seg}$	50	50	60	mW
Forward current	$I_F$	15	15	20	mA
Peak forward current	$I_{FP}$	60*	60*	60*	mA
Reverse voltage	$V_R$	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			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	$I_R$	$V_R = 5\text{V}$	—	—	100	—	—	100	—	—	100	μA
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-302VF / VP	2.2	6.3	—	mcd
Orange	610	LB-302DF / DP	2.2	6.3	—	mcd
Green	563	LB-302MF / MP	2.2	6.3	—	mcd

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