

# High efficiency, two-digit numeric displays

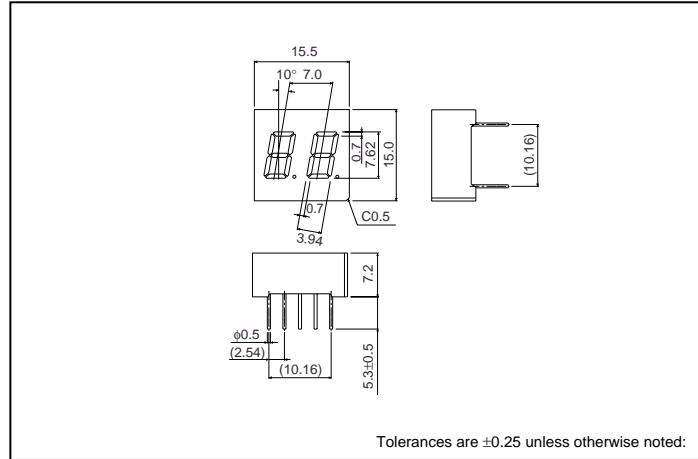
## LB-302FP Series

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)**

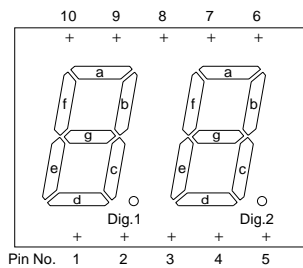


**●Selection guide**

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

\*Order-based production.

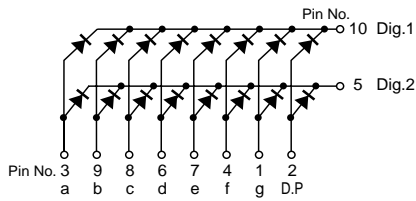
**●Pin assignments**



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	$P_{D/seg}$	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	$V_F$	$I_F = 10mA$	-	2.0	2.8	-	2.0	2.8	-	2.1	2.8	V
Reverse current	$I_R$	$V_R = 5V$	-	-	100	-	-	100	-	-	100	$\mu A$
Peak wavelength	$\lambda_P$	$I_F = 10mA$	-	650	-	-	610	-	-	563	-	nm
Spectral line half width	$\Delta\lambda$	$I_F = 10mA$	-	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  $I_F = 10mA$