

# High efficiency, two-digit numeric displays

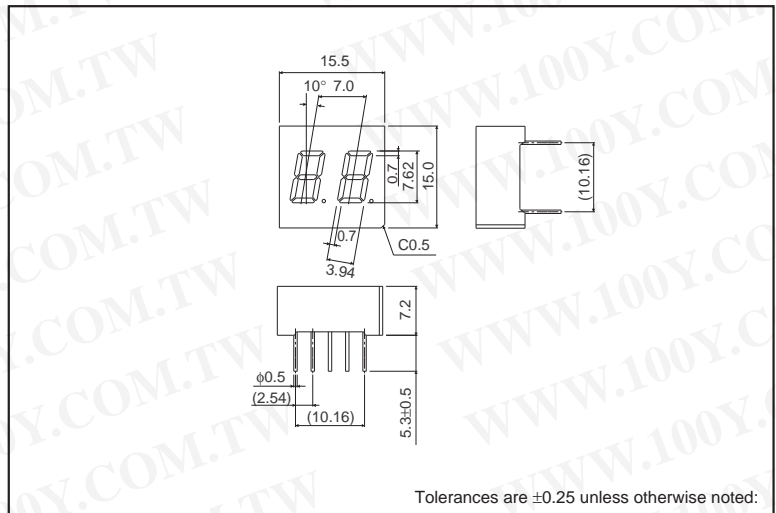
## LB-302FP Series

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 and green.
- 4) The package surface is painted black and the segments are milky white.

### ●Dimensions (Unit : mm)

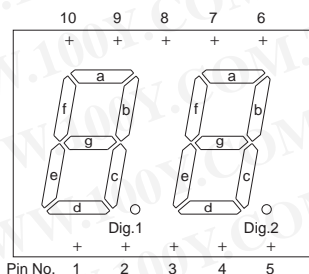


勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-34970699  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

### ●Selection guide

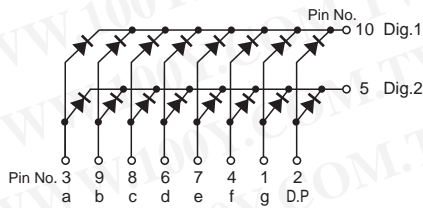
Emitting color	Common	
	Red	Green
Anode	LB-302VF	LB-302MF
Cathode	LB-302VP	LB-302MP

### ●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

● Internal circuit schematic (example of common cathode)



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● Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Red	Green	Unit
		LB-302VF / VP	LB-302MF / MP	
Power dissipation	P <sub>D</sub>	800	960	mW
Power dissipation	P <sub>D</sub> / seg	50	60	mW
Forward current	I <sub>F</sub>	15	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 to +75		°C
Storage temperature	Tstg	-30 to +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> = 5V	-	-	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-302VF / VP	2.2	6.3	-	mcd
Green	563	LB-302MF / MP	3.6	9.0	-	mcd

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

●Electrical and optical characteristic curves

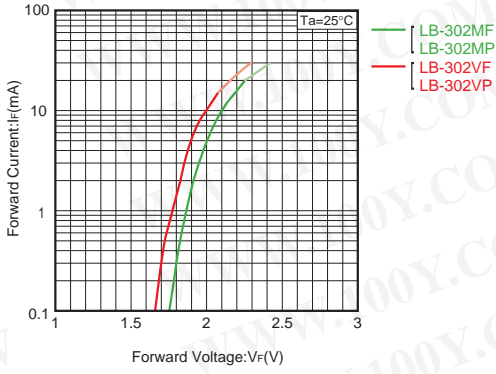


Fig.1 Forward Current - Forward Voltage

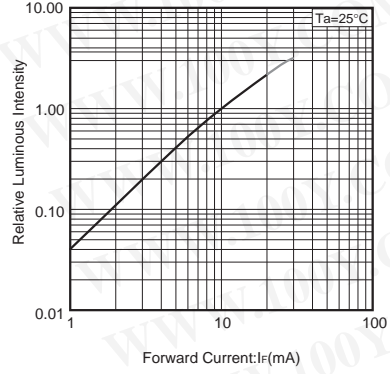


Fig.2 Relative Luminous Intensity - Forward Current

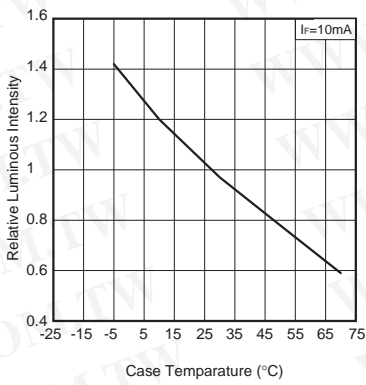


Fig.3 Relative Luminous Intensity - Case Temperature

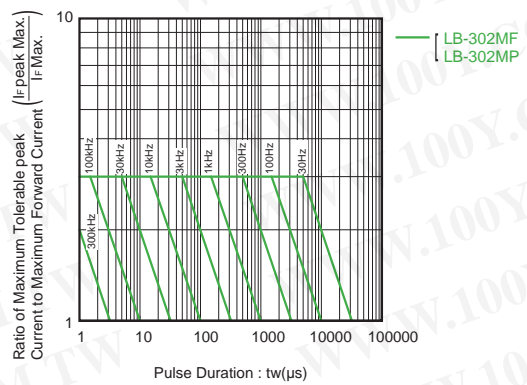


Fig.4 Ratio of Maximum Tolerable Peak Current - Pulse Duration ( I )

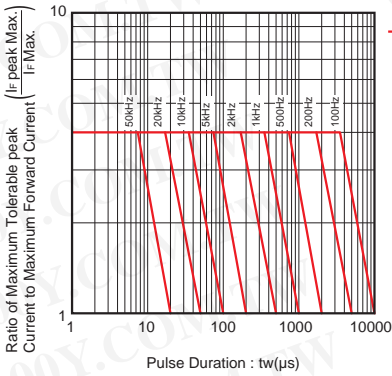


Fig.5 Ratio of Maximum Tolerable Peak Current - Pulse Duration ( II )

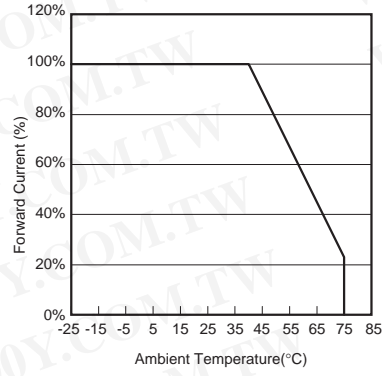


Fig.6 Derating

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