High efficiency, three-digit numeric displays

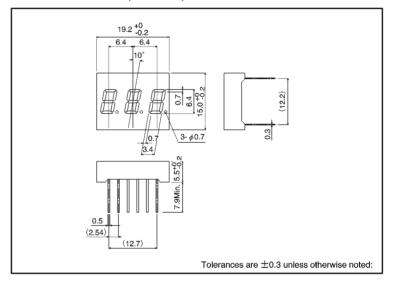
LB-203 BL Series

The LB-203 BL series are small, three-digit numeric displays with a character height of 6.4 mm. These displays can be combined with appropriate displays in the two-digit LB-202 BL series to form a multi-digit display with an equal pitch interval between characters.

Features

- 1) Four colors are available : red, orange, yellow and green.
- Common anode and common cathode configurations are available.
- Dynamic lighting system to minimize the number of pins.
- 4) Equal pitch interval between characters even with multi-digit display.
- The package surface is painted black and the segments are colored the display color.

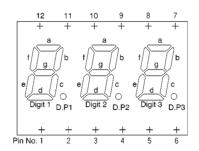
External dimensions (Units: mm)



Selection guide

Emitting color Common	Red	Orange	Yellow	Green
Anode	LB-203VB	LB-203DB	LB-203YB	LB-203MB
Cathode	LB-203VL	LB-203DL	LB-203YL	LB-203ML

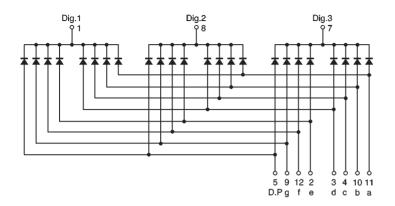
Pin assignments



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

LED displays LB-203 BL Series

●Internal circuit schematic (example of common cathode)



●Absolute maximum ratings (Ta = 25°C)

Parameter	Cymbol	Red	Orange	Yellow	Green	Unit	
	Symbol	LB-203VB / VL	LB-203DB / DL	B-203DB / DL LB-203YB / YL LB-203MB / N		Offic	
Power dissipation	P□	960	960	960	960	mW	
Power dissipation	P⊳/ seg	40	40	40	40	mW	
Forward current	lF	15	15	15	15	mA	
Peak forward current	IFP	60*	60*	60*	60*	mA	
Reverse voltage	VR	3	3	3	3	V	
Operating temperature	Topr		°C				
Storage temperature	Tstg		င				

^{*} Pulse width 1ms duty 1 / 5

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

Parameter Symbol	Conditions	Red		Orange		Yellow			Green			Unit			
		Min.	Тур.	Max.	Min.	Тур.	Max.	Min.	Тур.	Max.	Min.	Тур.	Max.	Offic	
Forward voltage	VF	I⊧=10mA	_	2.0	2.8	_	2.0	2.8	_	2.1	2.8	_	2.1	2.8	V
Reverse current	lR	V _R =3V		_	100	_	-	100	_	_	100	_	-	100	μΑ
Peak wavelength	λp	I=10mA	-	650	_	_	610	_	_	585	_	_	563	_	nm
Spectral line half width	Δλ	I=10mA	_	40	_	_	40	_	_	40	_	_	40	_	nm

ONot designed for radiation resistance.

LED displays LB-203 BL Series

•Luminous intensity

Color	λр	Туре	Min.	Тур.	Max.	Unit
Red	650	LB-203VB	0.0	6.3	_	mcd
	650	LB-203VL	2.2			
Orange	610	LB-203DB	0.0	6.3	_	mcd
		LB-203DL	2.2			
Yellow	585	LB-203YB	2.2	6.3		
		LB-203YL	2.2		_	mcd
Green	563	LB-203MB	2.2	6.3		
		LB-203ML	2.2		_	mcd

Note: Measured at IF = 10mA