High efficiency, two-digit numeric displays

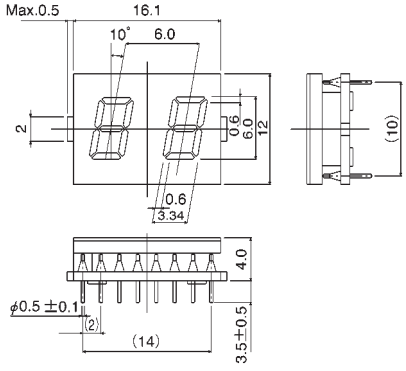
LB-202 DN Series

The LB-202 DN series were designed to meet the need for multi-digit numeric displays. These two-digit LED numeric displays use GaAsP on GaP for the emitting material (with the exception of green) and have a character height of 6.0 mm.

●Features

1) Height of character : 6.0 mm.
2) Common anode and common cathode configurations are available for each color.
3) High-efficiency reflectors are used to achieve a bright, clear display.

●External dimensions (Units: mm)

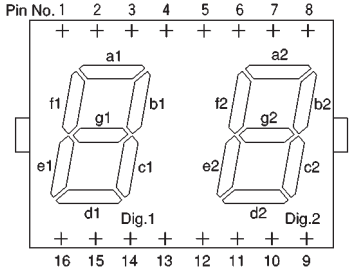


Tolerances are ±0.2 unless otherwise noted:

●Selection guide

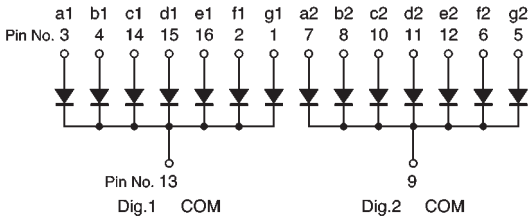
Emitting color / Common	Red	Orange	Yellow	Green
Anode	LB-202VD	LB-202DD	LB-202YD	LB-202MD
Cathode	LB-202VN	LB-202DN	LB-202YN	LB-202MN

●Pin assignments



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

●Internal circuit schematic (example of common cathode)



●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Red	Orange	Yellow	Green	Unit
		LB-202VD / VN	LB-202DD / DN	LB-202YD / YN	LB-202MD / MN	
Power dissipation	P_D	784	784	784	784	mW
Power dissipation	P_D / seg	56	56	56	56	mW
Forward current	I_F	20	20	20	20	mA
Peak forward current	I_{FP}	60*	60*	60*	60*	mA
Reverse voltage	V_R	3	3	3	3	V
Operating temperature	Topr	−25～+75				℃
Storage temperature	Tstg	−30～+85				℃

* Pulse width 1ms duty 1 / 5

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

Parameter	Symbol	Conditions	Red			Orange			Yellow			Green			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V_F	I_F=10mA	—	2.1	2.8	—	2.1	2.8	—	2.1	2.8	—	2.1	2.8	V
Reverse current	I_R	V_R=3V	—	—	100	—	—	100	—	—	100	—	—	100	μA
Peak wavelength	λ_P	I_F=10mA	—	650	—	—	610	—	—	585	—	—	563	—	nm
Spectral line half width	$\Delta\lambda$	I_F=10mA	—	40	—	—	40	—	—	40	—	—	40	—	nm

◎Not designed for radiation resistance.

●Luminous intensity

Color	λ_P	Type	Min.	Typ.	Max.	Unit
Red	650	LB-202VD	1.4	4.0	—	mcd
		LB-202VN				
Orange	610	LB-202DD	2.2	6.3	—	mcd
		LB-202DN				
Yellow	585	LB-202YD	1.4	4.0	—	mcd
		LB-202YN				
Green	563	LB-202MD	3.6	10	—	mcd
		LB-202MN				

Note: Measured at I_F = 10mA