

High efficiency, two-digit numeric displays

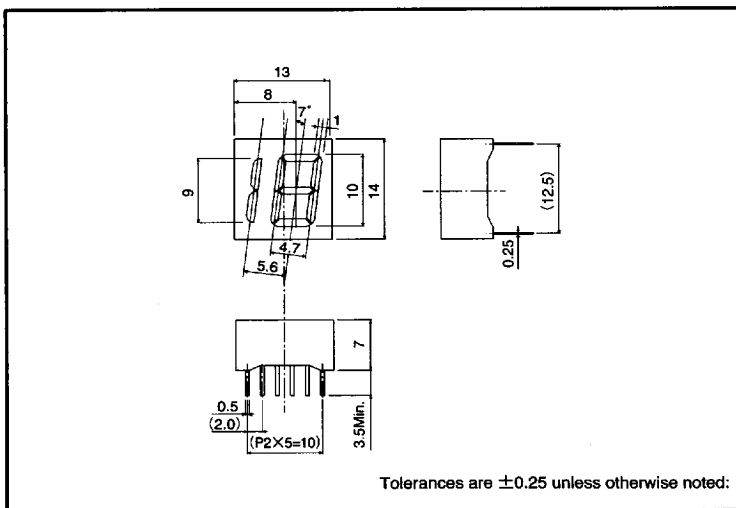
LB-402 CM Series

The LB-402 CM series are two-digit LED numeric displays with a character height of 10 mm. These displays were designed for use as counter displays, and are housed in a compact case of 14 × 13 mm.

●Features

- 1) Height of character : 10 mm.
- 2) High efficiency in a compact package.
- 3) Two colors, red and green, are available for a wide range of applications.

●External dimensions (Unit: mm)

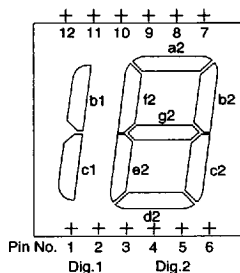


●Selection guide

Emitting color	Red	Green
Common		
アノード/Anode	LB-402VC*	LB-402MC
カソード/Cathode	LB-402VM*	LB-402MM

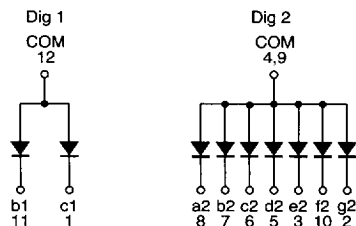
* Settings for high luminance specifications are also available.

●Pin layout



Pin No.	Function
1	Segment "c1"
2	Segment "g2"
3	Segment "e2"
4	Digit 2 Common
5	Segment "d2"
6	Segment "c2"
7	Segment "b2"
8	Segment "a2"
9	Digit 2 Common
10	Segment "f2"
11	Segment "b1"
12	Digit 1 Common

● Internal circuit schematic (example of common anode)



● Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Red	Green	Unit
		LB-402VC/VM	LB-402MC/MM	
Power dissipation	P_D	360	360	mW
Power dissipation	P_D/seg	40	40	mW
Forward current	I_F	15	15	mA
Peak forward current	I_{FP}	60*	60*	mA
Reverse voltage	V_R	3	3	V
Operating temperature	T_{opr}	$-25 \sim 75$		$^\circ\text{C}$
Storage temperature	T_{stg}	$-30 \sim 85$		$^\circ\text{C}$

* Pulse width 1ms Duty 1/5

● Electrical and optical characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Red			Green			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V_F	$I_F = 10\text{mA}$	—	2.0	2.8	—	2.1	2.8	V
Reverse current	I_R	$V_R = 3\text{V}$	—	—	100	—	—	100	μA
Peak wavelength	λ_P	$I_F = 10\text{mA}$	—	650	—	—	563	—	nm
Spectral line half width	$\Delta\lambda$	$I_F = 10\text{mA}$	—	40	—	—	40	—	nm

* Not designed for radiation resistance.

● Luminous intensity

Color	λ_P	Type	Min.	Typ.	Max.	Unit
Red	650	LB-402VC	3.6	10	—	mcd
		LB-402VM				
Green	563	LB-402MC	5.6	16	—	mcd
		LB-402MM				

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

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