

High efficiency, two-digit numeric displays

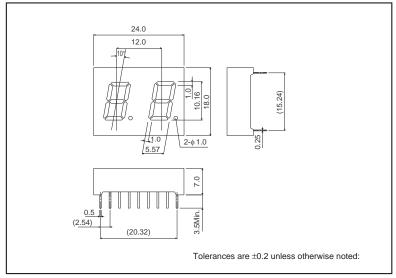
LB-402DN Series

The LB-402 DN series were designed to meet the need for multi-digit numeric displays. These LED numeric displays use GaAsP on GaP for the emitting material (with the exception of green) and are housed in an epoxy resin package. They are two-digit displays with a character height of 10.16 mm.

Features

- 1) Height of character: 10.16 mm
- 2) Common anode and common cathode configurations are available for each color.
- 3) The package surface is painted black and the segments are colored the display color.
- 4) High efficiency reflectors are used to achieve a bright, clear display.

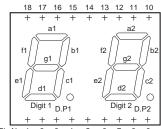
●Dimensions (Unit: mm)



Selection guide

Emitting color Common	Red	Green
Anode	LB-402VD	LB-402MD
Cathode	LB-402VN	LB-402MN

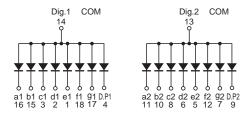
Pin assignments



Pin No.	Pin No. Function		Function
1	Segment "e1"	10	Segment "b2"
2	Segment "d1"	11	Segment "a2"
3	Segment "c1"	12	Segment "f2"
4	D.P1	13	Digit 2 Common
5	Segment "e2"	14	Digit 1 Common
6	Segment "d2"	15	Segment "b1"
7	Segment "g2"	16	Segment "a1"
8	Segment "c2"	17	Segment "g1"
9	D.P2	18	Segment "f1"

LB-402DN Series Data Sheet

•Internal circuit schematic (example of common anode)



●Absolute maximum ratings (Ta = 25°C)

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Parameter	Cumbal	Red	Green	Unit			
	Symbol	LB-402VD / VN					
Power dissipation	Po	640	960	mW			
Power dissipation	P	40	60	mW			
Forward current	lF	15	20	mA			
Peak forward current	IFP	60*	60*	mA			
Reverse voltage	VR	3	3	V			
Operating temperature	Topr	-25 to +75		°C			
Storage temperature	Tstg	-30 to	°C				

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

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

Parameter	Symbol	Conditions	Red			Green			Unit
Farameter			Min.	Тур.	Max.	Min.	Тур.	Max.	Offic
Forward voltage	VF	I _F = 10mA	_	2.0	2.8	_	2.1	2.8	V
Reverse current	IR	$V_R = 3V$	_	_	100	_	-	100	μА
Peak wavelength	λР	I _F = 10mA	_	650	_	_	563	_	nm
Spectral line half width	Δλ	I _F = 10mA	-	40	-	-	40	-	nm

ONot designed for radiation resistance.

Luminous intensity

- Luminous interiority							
•	Color	λР	Туре	Min.	Тур.	Max.	Unit
	Red	CEO	LB-402VD	5.6	16	_	mcd
	Red	650	LB-402VN	5.6			
	Creen	563	LB-402MD	9.0	25	_	mcd
	Green		LB-402MN				

Note : Measured at IF = 10mA

LB-402DN Series Data Sheet

•Electrical and optical characteristic curves

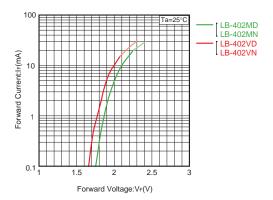


Fig.1 Forward Current - Forward Voltage

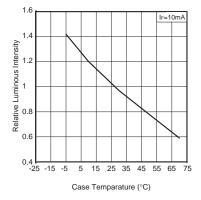


Fig.3 Relative Luminous Intensity - Case Temperature

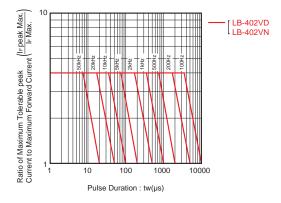


Fig.5 Ratio of Maximum Tolerable Peak Current - Pulse Duration (${
m II}$)

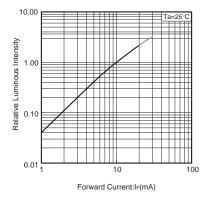


Fig.2 Relative Luminous Intensity - Forward Current

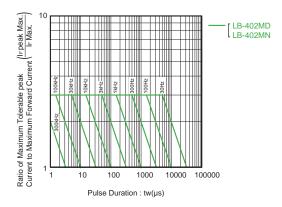


Fig.4 Ratio of Maximum Tolerable Peak Current - Pulse Duration (I)

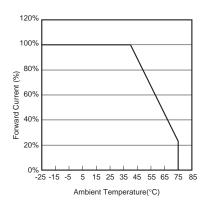


Fig.6 Derating

Notes

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