

High efficiency, single-digit numeric displays

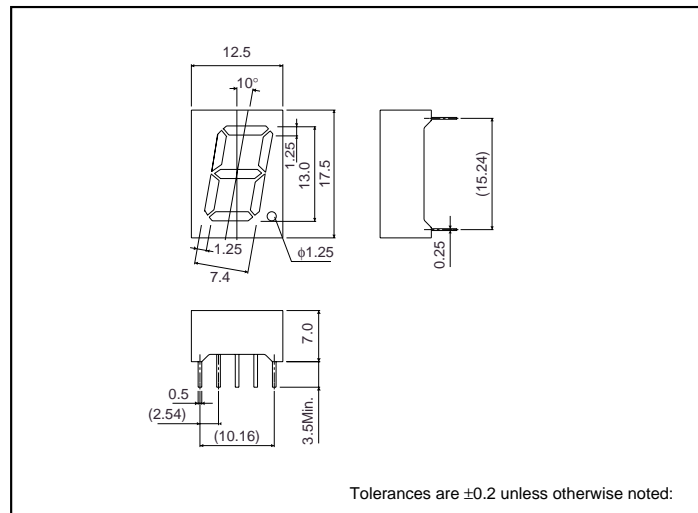
LA-501DN Series

The LA-501DN series were designed to meet the need for 13mm single-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 single-digit displays with a character height of 13.0mm.

●Features

- 1) Height of character: 13.0mm
- 2) Common anode and common cathode configurations are available for each color.
- 3) High-efficiency reflectors are used to achieve a bright, clear display.
- 4) The package surface is painted black and the segments are colored the display color.

●External dimensions (Units : mm)

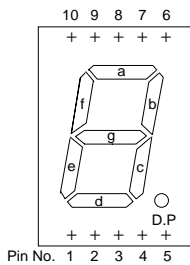


●Selection guide

Emitting color	Red	Orange	Green
	Common		
Anode	LA-501VD	LA-501DD*	LA-501MD
Cathode	LA-501VN	LA-501DN*	LA-501MN

* Order-based production.

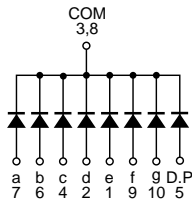
●Pin assignments



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

LED displays

● Internal circuit schematic (example of common cathode)



● Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Red	Orange	Green	Unit
		LA-501VD / VN	LA-501DD / DN	LA-501MD / MN	
Power dissipation	P_D	480	480	480	mW
Power dissipation	P_D / seg	60	60	60	mW
Forward current	I_F	20	20	20	mA
Peak forward current	I_{FP}	60*	60*	60*	mA
Reverse voltage	V_R	5	5	5	V
Operating temperature	T_{opr}	-25~+75			°C
Storage temperature	T_{stg}	-30~+85			°C

* Pulse width 1ms duty 1 / 5

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

Parameter	Symbol	Conditions	Red			Orange			Green			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V_F	$I_F = 10\text{mA}$	-	2.0	2.8	-	2.0	2.8	-	2.1	2.8	V
Reverse current	I_R	$V_R = 5\text{V}$	-	-	100	-	-	100	-	-	100	μA
Peak wavelength	λ_P	$I_F = 10\text{mA}$	-	650	-	-	610	-	-	563	-	nm
Spectral line half width	$\Delta\lambda$	$I_F = 10\text{mA}$	-	40	-	-	40	-	-	40	-	nm

© Not designed for radiation resistance.

● Luminous intensity

Color	λ_P	Type	Min.	Typ.	Max.	Unit
Red	650	LA-501VD	5.6	16	-	mcd
		LA-501VN				
Orange	610	LA-501DD	5.6	16	-	mcd
		LA-501DN				
Green	563	LA-501MD	5.6	16	-	mcd
		LA-501MN				

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