

# High efficiency, single-digit numeric displays

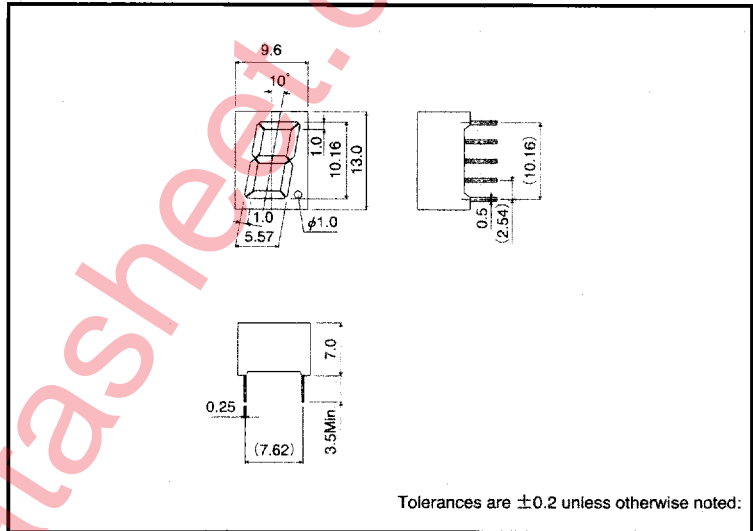
## LA-401 DN Series

The LA-401 DN series were designed to meet the need for small 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 10.16 mm.

●Features

- 1) Height of character : 10.16 mm.
- 2) Common anode and common cathode configurations are available for each color.
- 3) Each segment has independent pin connections and static drive is possible.
- 4) High-efficiency reflectors are used to achieve a bright, clear display.
- 5) The package surface is coated black and the segments are colored the display color.

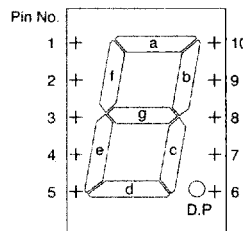
●External dimensions (Unit: mm)



●Selection guide

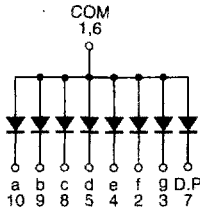
Emitting color	Red	Orange	Yellow	Green
	Common			
Anode	LA-401VD	LA-401DD	LA-401YD	LA-401MD
Cathode	LA-401VN	LA-401DN	LA-401YN	LA-401MN

●Pin layout



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

● Internal circuit schematic (example of common anode)



● Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Red	Orange	Yellow	Green	Unit
		LA-401VD/VN	LA-401DD/DN	LA-401YD/YN	LA-401MD/MN	
Power dissipation	P <sub>D</sub>	320	320	320	480	mW
Power dissipation	P <sub>D</sub> /seg	40	40	40	60	mW
Forward current	I <sub>F</sub>	15	15	15	20	mA
Peak forward current	I <sub>FP</sub>	60*	60*	60*	60*	mA
Reverse voltage	V <sub>R</sub>	3	3	3	3	V
Operating temperature	T <sub>opr</sub>	-25~75				°C
Storage temperature	T <sub>stg</sub>	-30~85				°C

\* 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 <sub>F</sub>	I <sub>F</sub> =10mA	—	2.0	2.8	—	2.0	2.8	—	2.1	2.8	—	2.1	2.8	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =3V	—	—	100	—	—	100	—	—	100	—	—	100	μA
Peak wavelength	λ <sub>P</sub>	I <sub>F</sub> =10mA	—	650	—	—	610	—	—	585	—	—	563	—	nm
Spectral line half width	Δλ	I <sub>F</sub> =10mA	—	40	—	—	40	—	—	40	—	—	40	—	nm

\* Not designed for radiation resistance.

● Luminous intensity

Color	λ <sub>p</sub>	Type	Min.	Typ.	Max.	Unit
Red	650	LA-401VD	5.6	16	—	mcd
		LA-401VN				
Orange	610	LA-401DD	3.6	10	—	mcd
		LA-401DN				
Yellow	585	LA-401YD	3.6	10	—	mcd
		LA-401YN				
Green	563	LA-401MD	5.6	16	—	mcd
		LA-401MN				

Note: Measured at I<sub>F</sub> = 10 mA