

# High efficiency, single-digit numerical displays

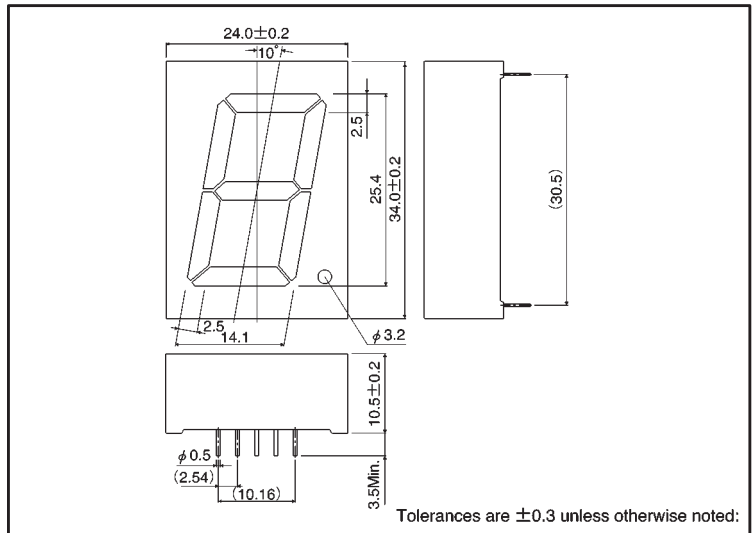
## LA-101 AK Series

The LA-101 AK series are LED numerical displays designed to allow use even in bright locations. The height of the character is 25.4 mm, and four colors are available : red, orange, yellow, and green. These displays are designed for use in large numerical displays.

### ●Features

- 1) Height of character : 25.4 mm.
- 2) Dimensions : 24 × 34 × 10.5 mm.
- 3) A common anode configuration and a common cathode configuration are available for each color.
- 4) The package surface is painted black and the segments are colored the display color.
- 5) High luminance, clear display.

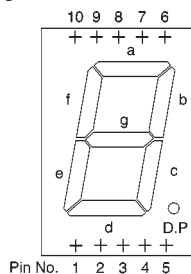
### ●External dimensions (Units: mm)



### ●Selection guide

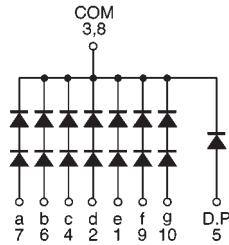
Emitting color	Red	Orange	Yellow	Green
	Common			
Anode	LA-101VA	LA-101DA	LA-101YA	LA-101MA
Cathode	LA-101VK	LA-101DK	LA-101YK	LA-101MK

### ●Pin assingment



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"

● Internal circuit schematic (example of common cathode)



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

Parameter	Symbol	Red	Orange	Yellow	Green	Unit
		LA-101VA / VK	LA-101DA / DK	LA-101YA / YK	LA-101MA / MK	
Power dissipation	$P_D$	640	640	640	640	mW
Power dissipation	$P_D / \text{seg}$	85 (45)	85 (45)	85 (45)	85 (45)	mW
Forward current	$I_F$	15	15	15	20	mA
Peak forward current	$I_{FP}$	60*	60*	60*	60*	mA
Reverse voltage	$V_R$	6 (3)	6 (3)	6 (3)	6 (3)	V
Operating temperature	$T_{opr}$	-25~+75				$^\circ\text{C}$
Storage temperature	$T_{stg}$	-30~+85				$^\circ\text{C}$

\* Pulse width 1ms duty 1 / 5

( ) is D.P value

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

Parameter	Symbol	Conditions	Red			Orange			Yellow			Green			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	$V_F$	$I_F=10\text{mA}$	—	2.0	2.8	—	2.0	2.8	—	2.1	2.8	—	2.1	2.8	V
Reverse current	$I_R$	$V_R=3\text{V}$	—	—	100	—	—	100	—	—	100	—	—	100	$\mu\text{A}$
Peak wavelength	$\lambda_P$	$I_F=10\text{mA}$	—	650	—	—	610	—	—	585	—	—	563	—	nm
Spectral line half width	$\Delta\lambda$	$I_F=10\text{mA}$	—	40	—	—	40	—	—	40	—	—	40	—	nm

© Not designed for radiation resistance.

The forward voltage and reverse current values are the guaranteed values per element.

● Luminous intensity

Color	$\lambda_P$	Type	Min.	Typ.	Max.	Unit
Red	650	LA-101VA	3.6	10	—	mcd
		LA-101VK				
Orange	610	LA-101DA	5.6	16	—	mcd
		LA-101DK				
Yellow	585	LA-101YA	5.6	16	—	mcd
		LA-101YK				
Green	563	LA-101MA	5.6	16	—	mcd
		LA-101MK				

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