

High efficiency, single-digit numeric displays

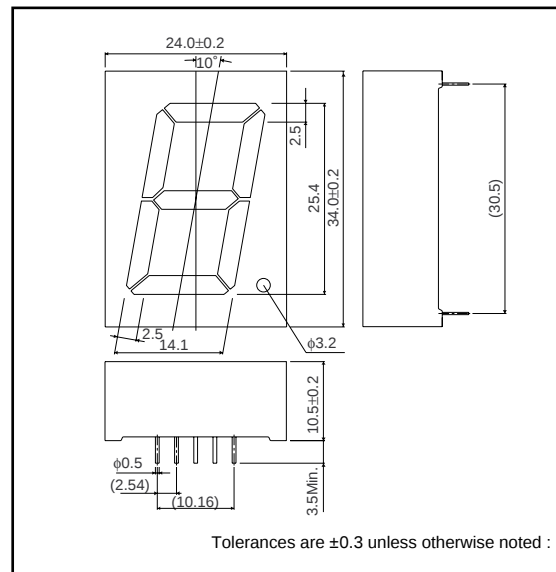
LA-101AK Series

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

●Features

- 1) Height of character: 25.4 mm
- 2) Dimensions: 24 x 34 x 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.

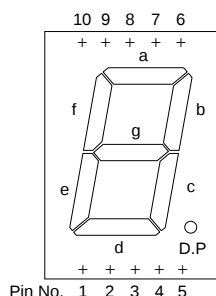
●Dimensions (Unit : mm)



●Selection guide

Emitting color	Red	Green
Common		
Anode	LA-101VA	LA-101MA
Cathode	LA-101VK	LA-101MK

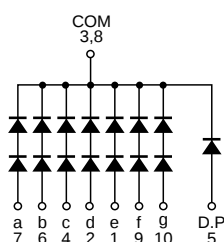
●Pin assignments



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	Green	Unit
		LA-101VA / VK	LA-101MA / MK	
Power dissipation	P _D	640	640	mW
Power dissipation	P _D / seg	85 (45)	85 (45)	mW
Forward current	I _F	15	20	mA
Peak forward current	I _{FP}	60*	60*	mA
Reverse voltage	V _R	3	3	V
Operating temperature	T _{opr}	-25 to +75		°C
Storage temperature	T _{stg}	-30 to +85		°C

* Pulse width 1ms duty 1 / 5

() is D.P value

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

Parameter	Symbol	Conditions	Elements	Red			Green			Unit
				Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V _F	I _F =10mA	2	—	4.0 ^{*1}	5.6 ^{*1}	—	4.2 ^{*1}	5.6 ^{*1}	V
			1	—	2.0 ^{*2}	2.8 ^{*2}	—	2.1 ^{*2}	2.8 ^{*2}	
Reverse current	I _R	V _R =3V	—	—	—	100	—	—	100	μA
Peak wavelength	λ _P	I _F =10mA	—	—	650	—	—	563	—	nm
Spectral line half width	Δλ	I _F =10mA	—	—	40	—	—	40	—	nm

© Not designed for radiation resistance.

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

●Luminous intensity

Color	λ _P	Type	Min.	Typ.	Max.	Unit
Red	650	LA-101VA	3.6	10	—	mcd
		LA-101VK				
Green	563	LA-101MA	5.6	16	—	mcd
		LA-101MK				

Note : Measured at I_F=10mA

LED displays

●Electrical and optical characteristic curves

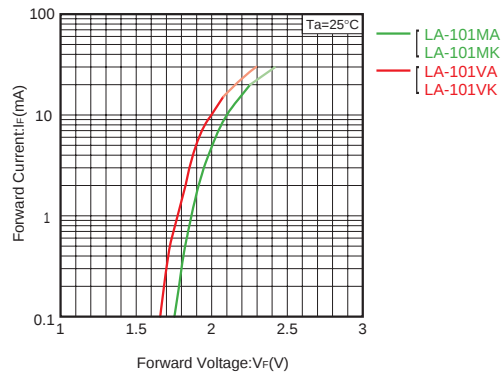


Fig.1 Forward Current - Forward Voltage

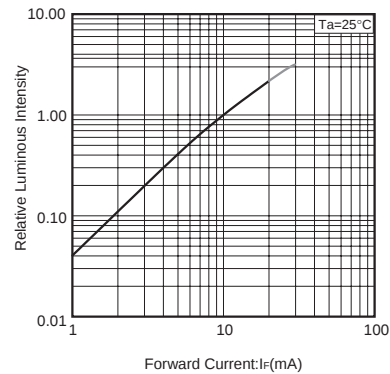


Fig.2 Relative Luminous Intensity - Forward Current

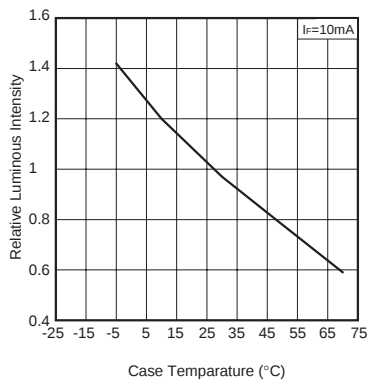


Fig.3 Relative Luminous Intensity - Case Temperature

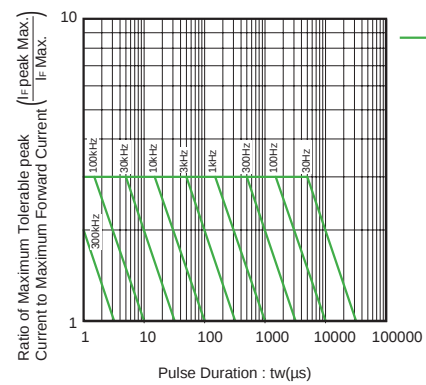


Fig.4 Ratio of Maximum Tolerable Peak Current - Pulse Duration (I)

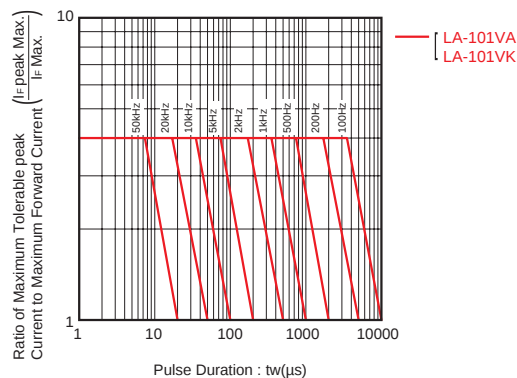


Fig.5 Ratio of Maximum Tolerable Peak Current - Pulse Duration (II)

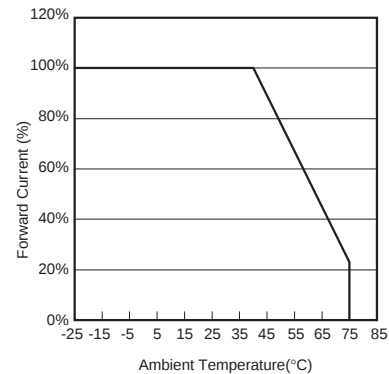


Fig.6 Derating

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