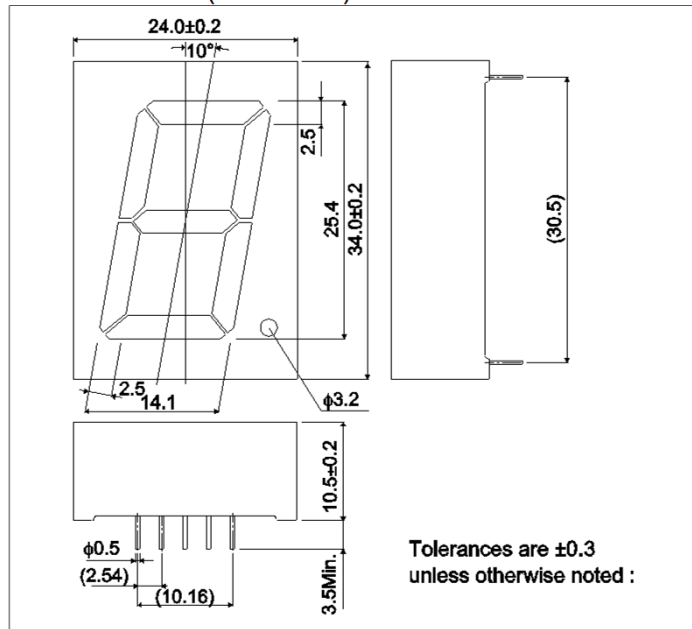


The LA-101AK series are LED numerical displays designed to allow use even in bright locations. The height of the character is 25.4 mm, and two colors are available: red and green. These displays are designed for use in large numerical displays.

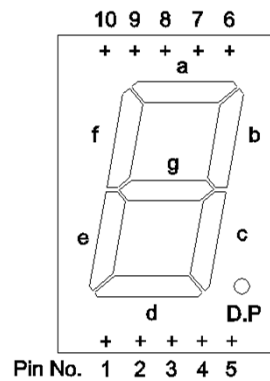
●Features

- 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)

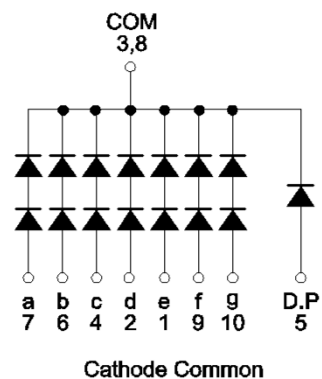
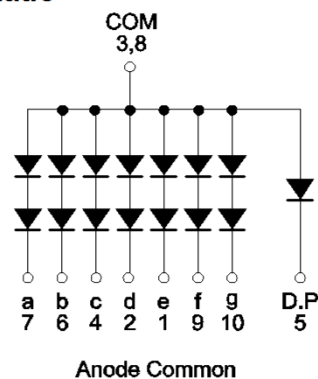


●Pin assignments



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"

●Internal circuit schematic



●Selection guide

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

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

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	5	5	V
Operating temperature	T_{opr}	-25 to +75		$^\circ\text{C}$
Storage temperature	T_{stg}	-30 to +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	Elements	Red			Green			Unit
				Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V_F	$I_F=10\text{mA}$	2	-	4.0	5.6	-	4.2	5.6	V
			1	-	2.0	2.8	-	2.1	2.8	
Reverse current	I_R	$V_R=3\text{V}$	-	-	-	100	-	-	100	μA
Peak wavelength	λ_p	$I_F=10\text{mA}$	-	-	650	-	-	563	-	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F=10\text{mA}$	-	-	40	-	-	40	-	nm

© Not designed for radiation resistance.

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

●Luminous intensity

Parameter	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				

© Condition $I_F=10\text{mA}$

●Iv classification

Parameter	Type	Item	Iv classification	Unit
Red	LA-101VA LA-101VK	“ L ”	5.6 to 11	mcd
		“ M ”	9.0 to 18	mcd
		“ N ”	14 to 28	mcd
		“ P ”	22 to 45	mcd
		“ Q ”	36 to (71)	mcd
Green	LA-101MA LA-101MK	“ L ”	5.6 to 11	mcd
		“ M ”	9.0 to 18	mcd
		“ N ”	14 to 28	mcd
		“ P ”	22 to 45	mcd
		“ Q ”	36 to (71)	mcd

© Condition $I_F=10\text{mA}$

●Electrical and optical characteristics curves

Fig.1 Forward Current vs. Forward Voltage

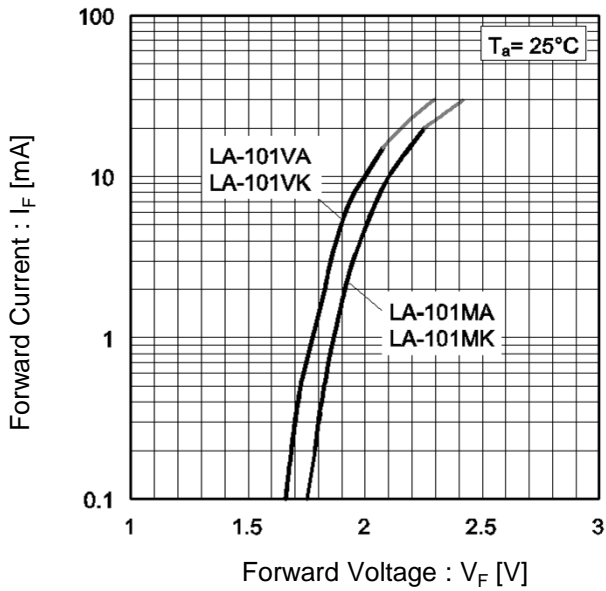


Fig.2 Relative Luminous Intensity vs. Forward Current

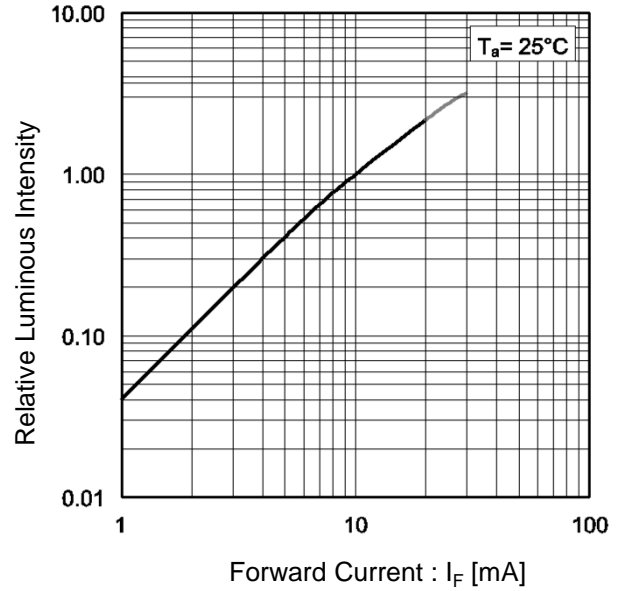


Fig.3 Relative Luminous Intensity vs. Case Temperature

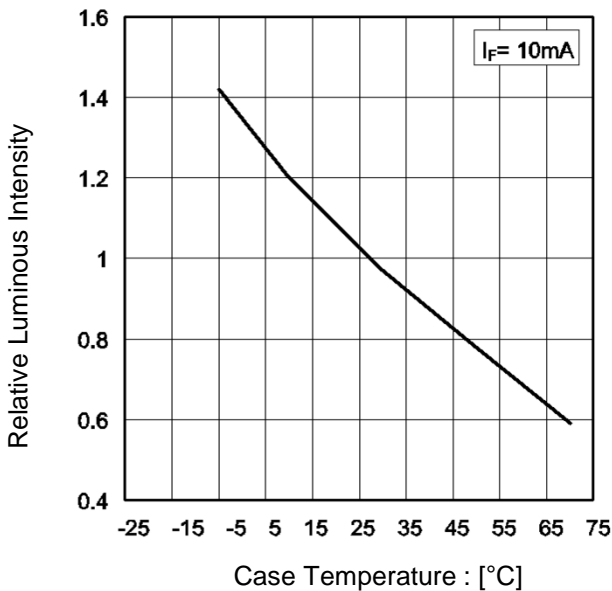
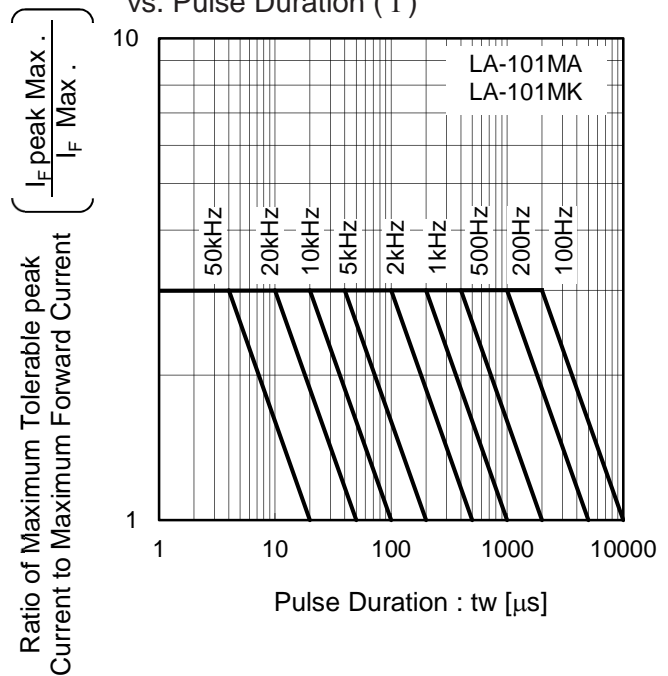


Fig.4 Ratio of Maximum Tolerable Peak Current vs. Pulse Duration (I)



●Electrical and optical characteristics curves

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

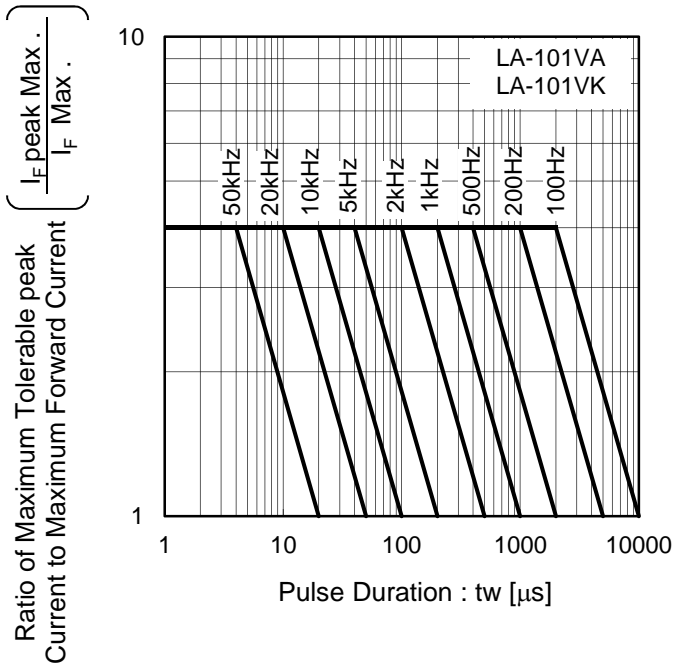
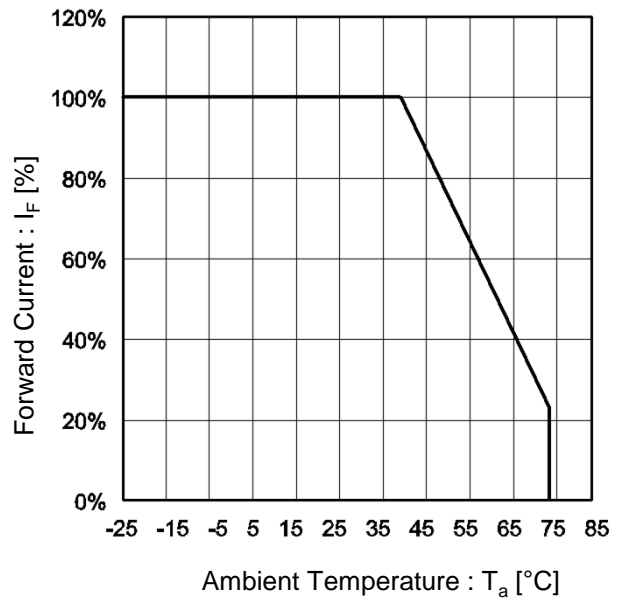


Fig.6 Derating



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