

High efficiency, single-digit numerical displays

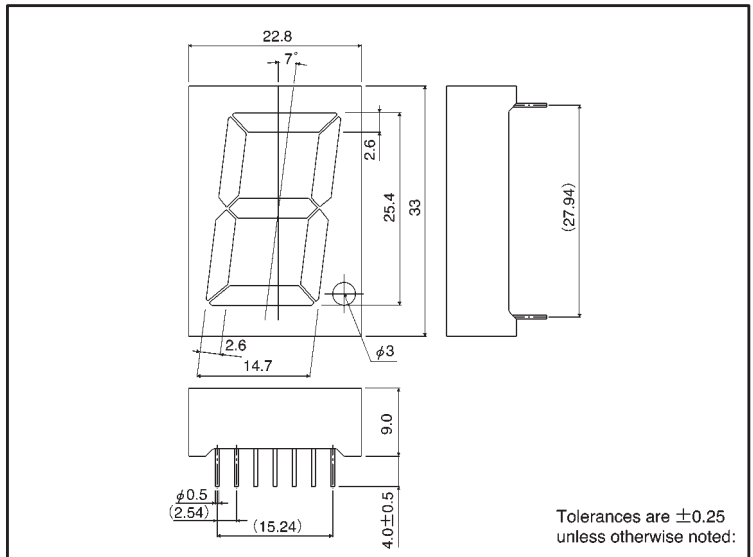
LA-121 AK Series

The LA-121 AK series are two-color, high luminance LED numerical displays designed to allow use even in bright locations. Red, green and orange displays are possible.

●Features

- 1) Height of character : 25.4 mm.
- 2) Dimensions : 22.8 × 33 × 9 mm.
- 3) A common anode configuration and a common cathode configuration are available.
- 4) The package surface is painted black and the segments are milky white.
- 5) High luminance, clear display.
- 6) Red, green and orange displays are possible.

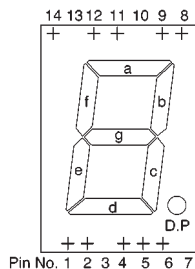
●External dimensions (Units: mm)



●Selection guide

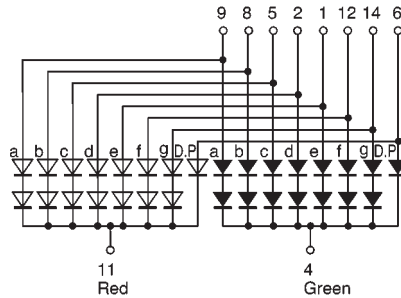
Emitting color	Red / Green
Common	
Anode	LA-121MLA
Cathode	LA-121MLK

●Pin assignments



Pin No.	Function	Pin No.	Function
1	Segment "e"	8	Segment "b"
2	Segment "d"	9	Segment "a"
3	—	10	—
4	Green Common	11	Red Common
5	Segment "c"	12	Segment "f"
6	D.P	13	—
7	—	14	Segment "g"

● Internal circuit schematic (example of common cathode)



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

Parameter	Symbol	Red	Green	Unit
		LA-121MLA / MLK	LA-121MLA / MLK	
Power dissipation	P_D	900	750	
Power dissipation	P_D / seg	120 (60)	100 (50)	
Forward current	I_F	30	20	
Peak forward current	I_{FP}	80*	60*	
Reverse voltage	V_R	8 (4)	8 (4)	
Operating temperature	T_{opr}	-25~+75		
Storage temperature	T_{stg}	-25~+85		

* Pulse width 1ms duty 1 / 5
() is D.P value

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

Parameter	Symbol	Conditions	Red			Green			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V_F	$I_F=20\text{mA}$	—	3.5 (1.75)	4 (2)	—	4.4 (2.2)	5 (2.5)	V
Reverse current	I_R	$V_R=3\text{V}$	—	—	100	—	—	100	μA
Peak wavelength	λ_P	$I_F=20\text{mA}$	—	660	—	—	563	—	nm
Spectral line half width	$\Delta\lambda$	$I_F=20\text{mA}$	—	25	—	—	40	—	nm

⊙ Not designed for radiation resistance.
() is D.P value

● Luminous intensity

Color	λ_P	Type	Min.	Typ.	Max.	Unit
Red	660	LA-121MLA	36	100	—	mcd
		LA-121MLK				
Green	563	LA-121MLA	36	100	—	mcd
		LA-121MLK				

Note: Measured at $I_F = 20\text{mA}$