

Two-color, high luminance numeric displays

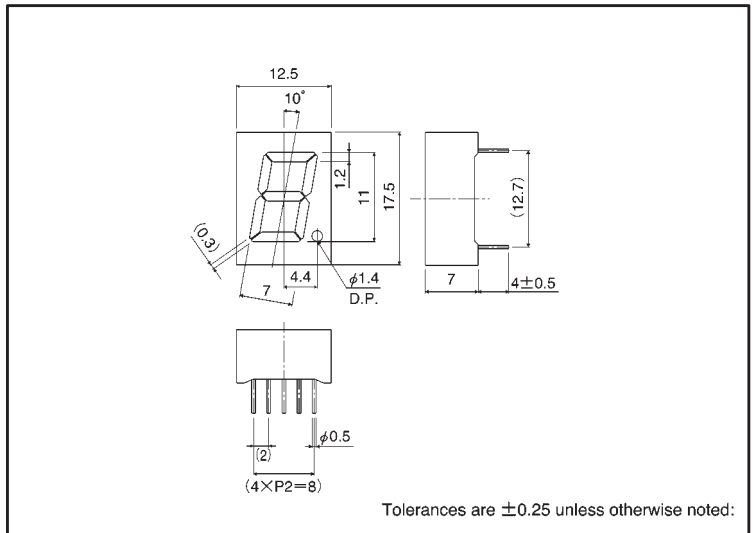
LA-421 AK Series

The LA-421 AK series are two-color, high luminance numeric displays designed to be used in bright locations. Red, green and orange displays are possible.

●Features

- 1) Height of display : 11 mm.
- 2) Dimensions : 12.5 × 17.5 × 7 mm.
- 3) Common anode and common cathode configurations 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.

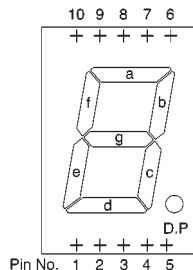
●External dimensions (Units: mm)



●Selection guide

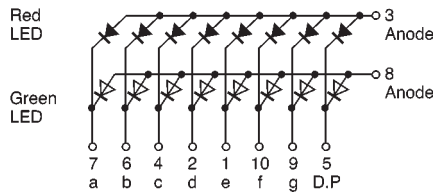
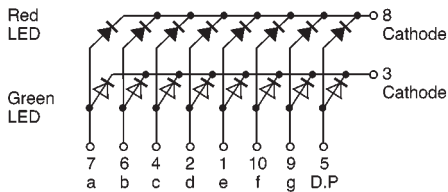
Emitting color	Red / Green
Common	LA-421MLA
Anode	LA-421MLK
Cathode	

●Pin assignments



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

● Internal circuit schematic (example of common cathode) (example of common anode)



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

Parameter	Symbol	Red	Green	Unit
		LA-421MLA / MLK	LA-421MLA / MLK	
Power dissipation	P_D	640	480	mW
Power dissipation	P_D / seg	80	60	mW
Forward current	I_F	30	20	mA
Peak forward current	I_{FP}	60*	60*	mA
Reverse voltage	V_R	3	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

● 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	$I_F=20\text{mA}$	—	1.75	2.5	—	2.1	2.8	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.

● Luminous intensity

Color	λ_P	Type	Min.	Typ.	Max.	Unit
Red	660	LA-421MLA	14	50	—	mcd
		LA-421MLK				
Green	563	LA-421MLA	9.0	25	—	mcd
		LA-421MLK				

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