

# Large flat displays

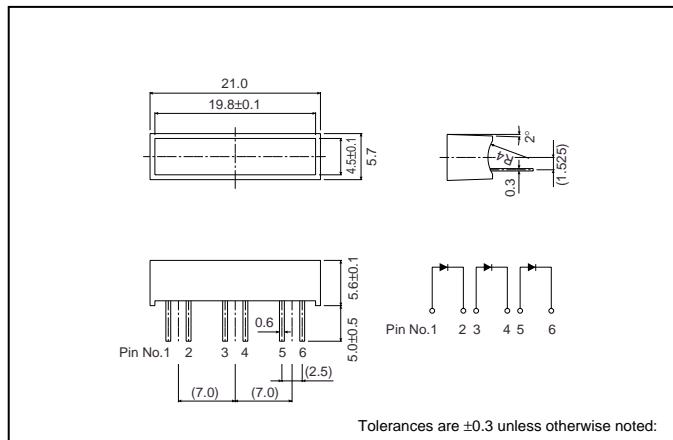
## LD-701 Series

The LD-701 series were designed in response to the need for large, flat displays. These are three-chip, flat displays with high luminance.

### ●Features

- 1) Three independent chip elements.
- 2) Large 4.5 x 19.8 mm emission area.
- 3) Thin outer casing, multiple units can be coupled together.
- 4) Four colors are available: red, orange, yellow and green.

### ●External dimensions (Units : mm)



### ●Selection guide

Emitting color	Red	Orange	Yellow	Green
Type	LD-701VR	LD-701DU*	LD-701YY*	LD-701MG

\*Order-based production.

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

Parameter	Symbol	Red	LD-701VR	Orange	LD-701DU	Yellow	LD-701YY	Green	LD-701MG	Unit
Power dissipation	$P_D$		180		180		180		225	mW
Forward current	$I_F$		20		20		20		25	mA
Peak forward current	$I_{FP}$		60*		60*		60*		60*	mA
Reverse voltage	$V_R$		3		3		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

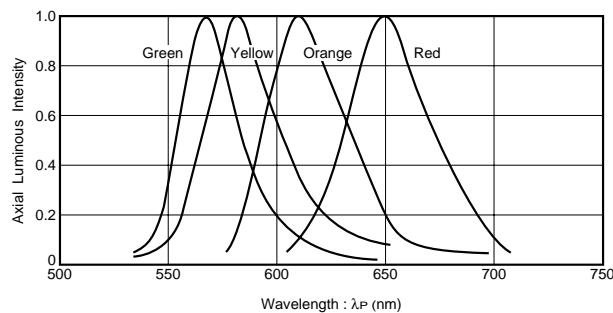
## LED displays

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

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	3.0	—	2.0	3.0	—	2.1	3.0	—	2.1	3.0	V
Reverse current	$I_R$	$V_R = 3\text{V}$	—	—	10	—	—	10	—	—	10	—	—	10	$\mu\text{A}$
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

Electrical and optical values are guaranteed values per element.

## ● Luminous intensity vs. wavelength



## ● Luminous intensity

Color	Type	Min.	Typ.	Max.	Unit
Red	LD-701VR	3.6	10	—	mcd
Orange	LD-701DU	3.6	10	—	mcd
Yellow	LD-701YY	2.2	6.3	—	mcd
Green	LD-701MG	3.6	10	—	mcd

Note 1: Measured at  $I_F = 10\text{mA}$

Note 2: Current passes through all elements.

## ● Operation notes

When forming leads, the bend should be at least 2mm from the base of the package. Solder after forming the leads, and ensure that the inside of the LED is not subjected to mechanical stress while it is hot.