

Flat displays

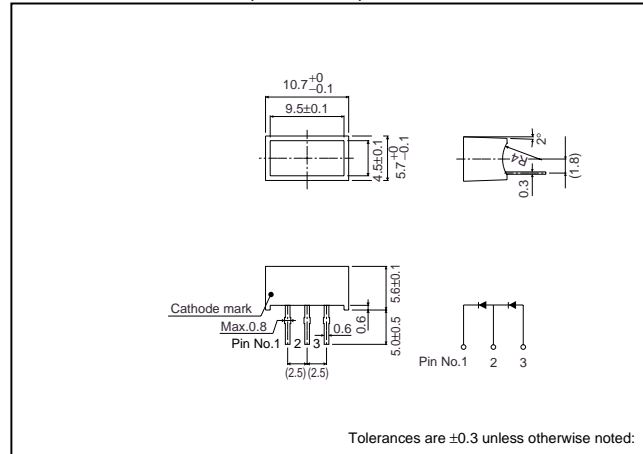
LD-001 Series

The LD-001 series were designed in response to the need for medium-sized, flat displays. These are two-chip, flat displays with high luminance.

●Features

- 1) 4.5 x 9.5 mm planar emission from two chips connected in series.
- 2) High luminance, uniform emission.
- 3) Four colors : red, orange, yellow and green.

●External dimensions (Units : mm)



●Selection guide

Emitting color	Red	Orange	Yellow	Green
Type	LD-001VR	LD-001DU*	LD-001YY*	LD-001MG

*Order-based production.

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Red	LD-001VR	Orange	LD-001DU	Yellow	LD-001YY	Green	LD-001MG	Unit
Power dissipation	P _D	120	120	120	120	120	120	150	150	mW
Forward current	I _F	20	20	20	20	20	20	25	25	mA
Peak forward current	I _{FP}	60*	60*	60*	60*	60*	60*	60*	60*	mA
Reverse voltage	V _R	3	3	3	3	3	3	3	3	V
Operating temperature	T _{opr}	-25~+75								°C
Storage temperature	T _{stg}	-30~+85								°C

* Pulse width 1ms duty 1 / 5

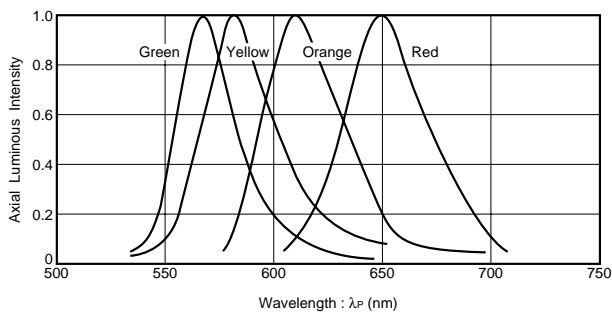
LED displays

●Electrical and optical characteristics (Ta = 25°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	2.8	–	2.0	2.8	–	2.1	2.8	–	2.1	2.8	V
Reverse current	I_R	$V_R = 3\text{V}$	–	–	10	–	–	10	–	–	10	–	–	10	μA
Peak wavelength	λ_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-001VR	2.2	6.3	–	mcd
Orange	LD-001DU	2.2	6.3	–	mcd
Yellow	LD-001YY	1.4	4.0	–	mcd
Green	LD-001MG	3.6	10	–	mcd

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

Note 2: Current passes through 2 elements in series.

●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.