

Flat displays

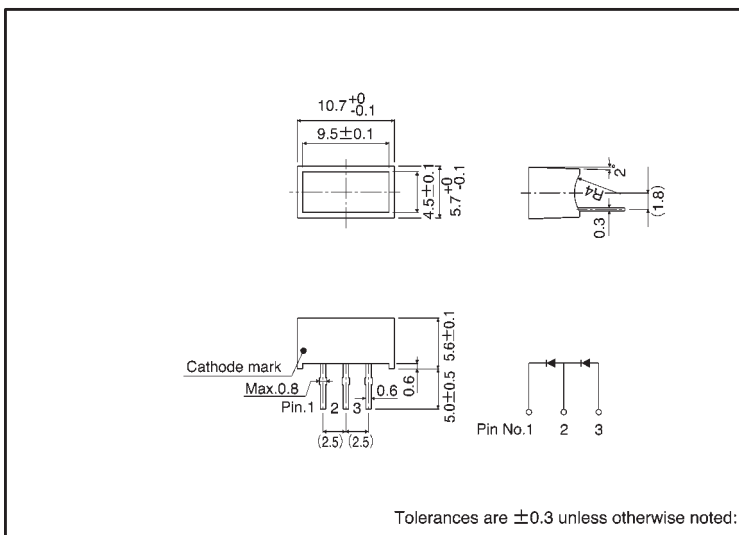
LD-001 Series

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) 4.5×9.5 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

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

Parameter	Symbol	Red	LD-001VR	Orange	LD-001DU	Yellow	LD-001YY	Green	LD-001MG	Unit
Power dissipation	P_D	120		120		120		150		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}	$-25 \sim +75$								$^\circ\text{C}$
Storage temperature	T_{stg}	$-30 \sim +85$								$^\circ\text{C}$

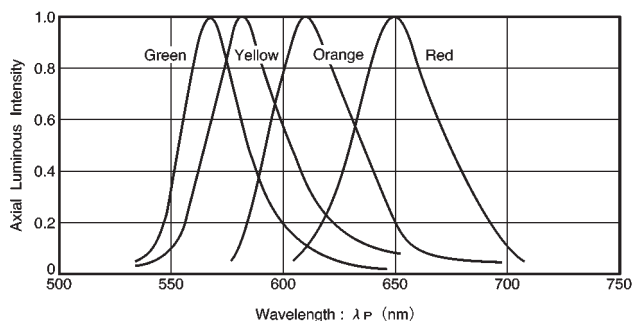
* Pulse width 1ms duty 1 / 5

●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 segment.

●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 2 mm 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.