

8 × 8 matrix displays

LM-2064 Series

The LM-2064 series are 8 × 8 matrix displays which can be used in a wide variety of applications, including alphabet, numeric, symbol, and graphic displays. Bright red and green are available, as well as a dual-color red/green type.

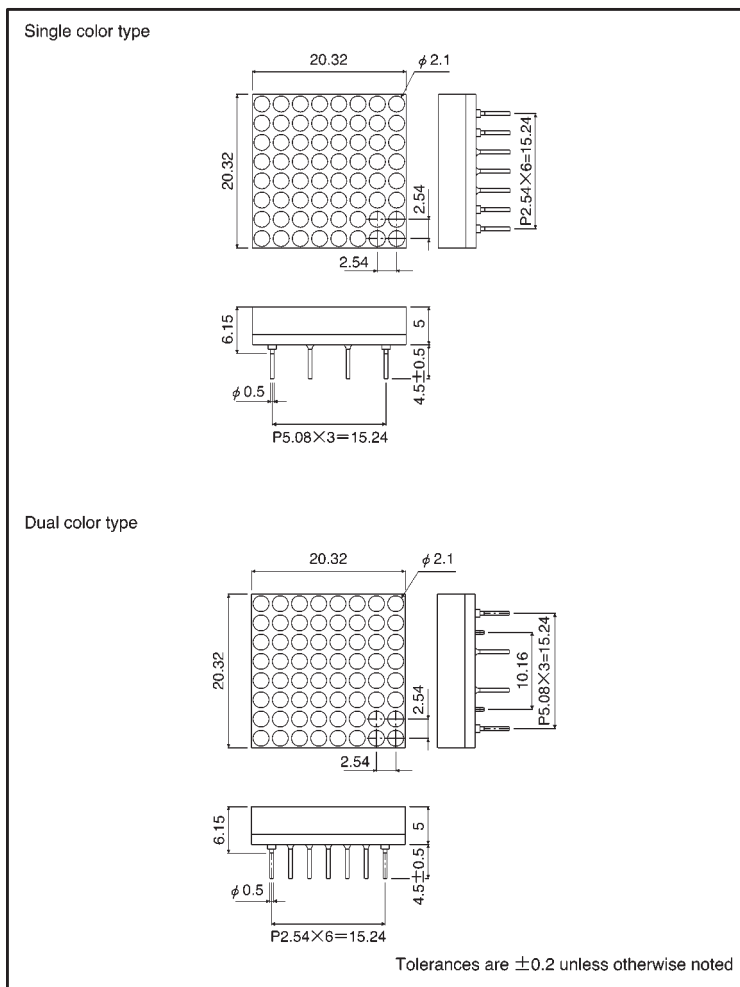
●Applications

Light sources for displays

●Features

- 1) 8 × 8 dot matrix
Circular emitters.
- 2) External dimensions: 20.32 × 20.32 × 6.15 mm
- 3) Emitters: Circular, 2.1 mm diameter
- 4) Black package.

●External dimensions (Units: mm)

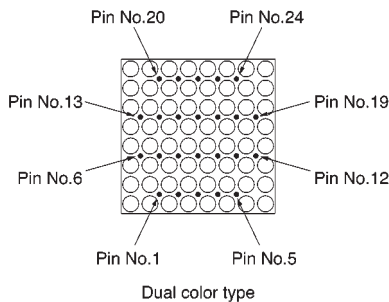
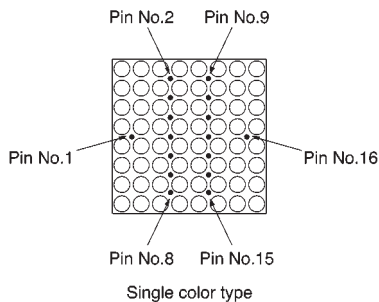


●Selection guide

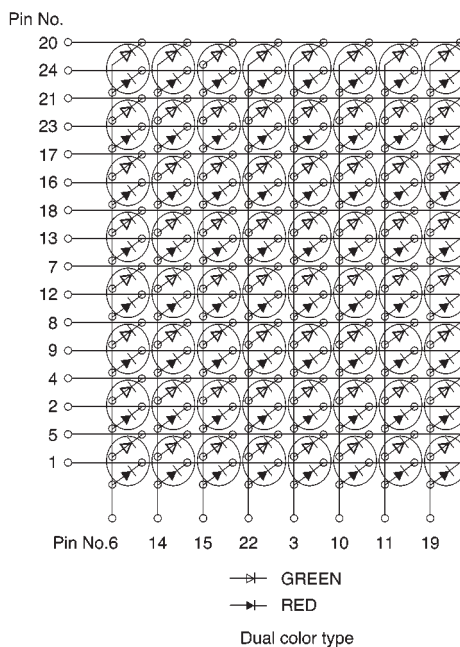
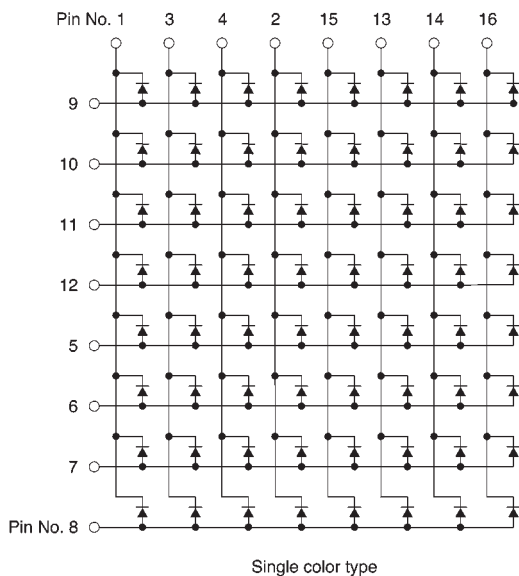
Emitting color	Red*	Green	Red / Green
Common			
Anode	LM-2064LB	LM-2064MB	—
Cathode	—	—	LM-2064MUM

* Bright red

● Pin assignments



● Internal circuit schematic

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

Single-color type

Parameter	Symbol	LB	MB	Unit
		Red*2	Green	
Power dissipation	P_D	1.6	1.4	W
Forward current	I_F	30	15	mA
Peak forward current	I_{FP}	80*1	60*1	mA
Reverse voltage	V_R	4	3	V
Operating temperature	T_{opr}	$-20 \sim +60$		$^\circ\text{C}$
Storage temperature	T_{stg}	$-30 \sim +85$		$^\circ\text{C}$

*1 Pulse width 1msec duty 1 / 8

*2 Bright red

Dual-color type

Parameter	Symbol	MUM		Unit
		Red	Green	
Power dissipation	P_D	35	35	mW/dot
Forward current	I_F	15	15	mA
Peak forward current	I_{FP}	60*	60*	mA
Reverse voltage	V_R	4	4	V
Operating temperature	T_{opr}	$-20 \sim +50$		$^{\circ}\text{C}$
Storage temperature	T_{stg}	$-25 \sim +75$		$^{\circ}\text{C}$

* Pulse width 1msec duty 1 / 8

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

Single-color type

Parameter	Symbol	Conditions	LB			MB			Unit
			Red*1			Green			
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V _F	I _F =10mA	—	1.75	2.5	—	2.1	2.8	V
Reverse current	I _R	V _R =3V	—	—	100	—	—	100	μA
Peak wavelength	λ _P	I _F =10mA	—	660	—	—	563	—	nm
Spectral line half width	Δλ	I _F =10mA	—	25	—	—	40	—	nm

⊙Not designed for radiation resistance.

*1 $I_F = 20\text{mA}$

Dual-color type

Parameter	Symbol	Conditions	MUM						Unit
			Red			Green			
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V _F	I _F =10mA	—	2.0	2.8	—	2.1	2.8	V
Reverse current	I _R	V _R =3V	—	—	100	—	—	100	μ A
Peak wavelength	λ _P	I _F =10mA	—	635	—	—	563	—	nm
Spectral line half width	Δ λ	I _F =10mA	—	40	—	—	40	—	nm

⊙Not designed for radiation resistance.

●Luminous intensity

Color	Type	Min.	Typ.	Max.	Unit
Red*1	LB	1.7	5.0	—	mcd
Green	MB	0.56	1.6	—	mcd
Red	MUM	0.56	1.6	—	mcd
Green		0.9	2.5	—	mcd

Note: Measured at $I_F = 10\text{mA}$ *1 $I_F = 20\text{mA}$