

# LM-2064 series

## 8 × 8 dot matrix display, single or dual color, 2.1 mm diameter element

The LM-2064 series are 8 × 8 dot matrix displays. They are available with 2.1 mm diameter elements.

### Features

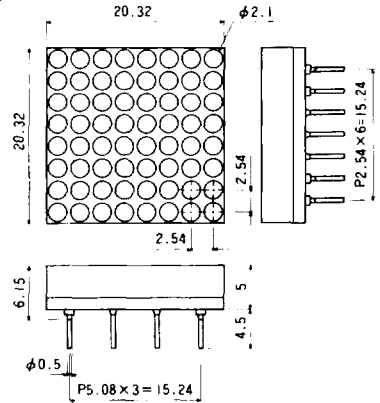
- 8 × 8 dot matrix; with round ( $\phi = 2.1$  mm) emitters, external dimensions 20.32 × 20.32 × 6.15 mm
- available in bright red and green single color or red and green dual color displays
- package has black-painted surface, segments are tinted
- thin outer casing, multiple units can be coupled together
- clear display
- wide viewing angle

### Applications

- alpha displays
- numeric displays
- graphic displays

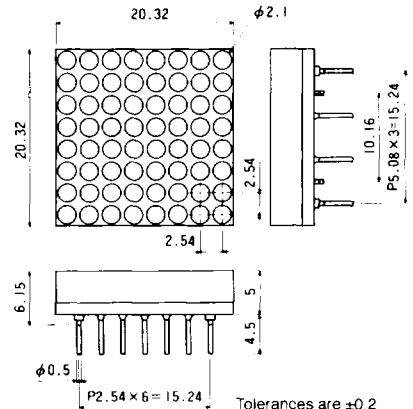
### Dimensions (Units : mm)

#### Single color



Tolerances are  $\pm 0.2$  unless otherwise noted

#### Two color



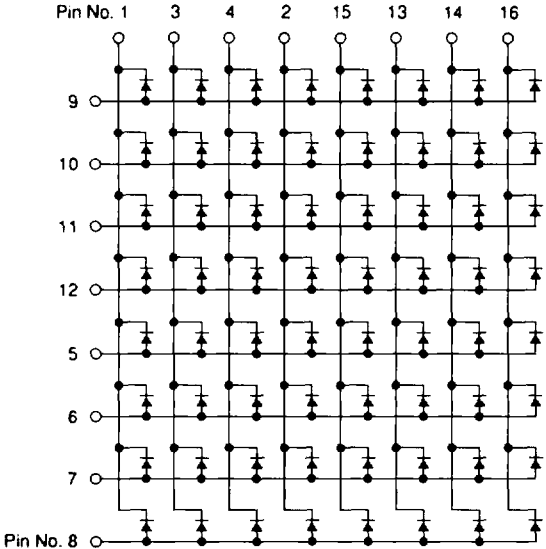
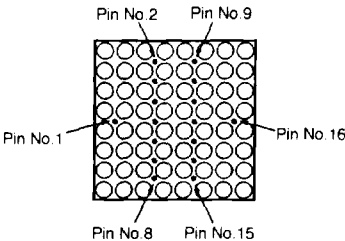
Tolerances are  $\pm 0.2$  unless otherwise noted

### Selection guide

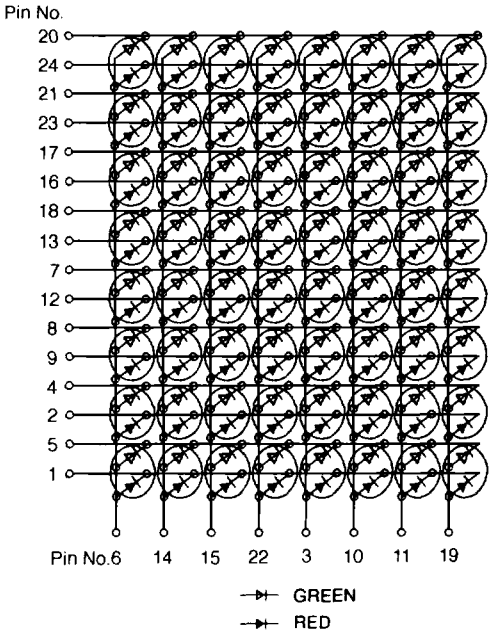
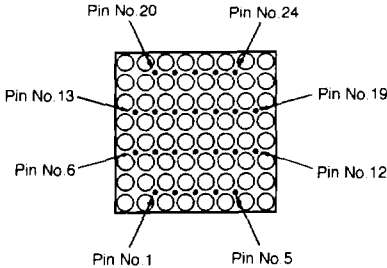
Part no.	LM-2064LB	LM-2064MB	
Color & wavelength	Bright red, 660 nm	Green, 563 nm	
Common pin	Anode	Anode	
Availability	semi-standard	semi-standard	
Part no.			LM-2064MUM
Color & wavelength			Red, 635 nm, green, 563 nm
Common pin			Cathode
Availability			semi-standard

Pin connections

Single color



Two color



## LM-2064 series Dot matrix display

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

Parameter	Symbol	LM-2064 LB	LM-2064 MB	LM-2064MUM		Unit	Conditions
		Bright red	Green	Red	Green		
Power dissipation	$P_d$	1.6	1.4	35		W	For LM-2064MUM, units are mW/dot
Forward current	$I_F$	30	15	15		mA	
Peak forward current	$I_{FP}$	80	60	60		mA	Pulse width 1 ms, duty 12.5%
Reverse voltage	$V_R$	4	3	4		V	
Operating temperature	$T_{opr}$	-25 ~ +60		-20 ~ +50		$^\circ\text{C}$	
Storage temperature	$T_{stg}$	-30 ~ +85		-25 ~ +75		$^\circ\text{C}$	

### Electro-optical characteristics ( $T_a = 25^\circ\text{C}$ )

Parameter	Sym	LM-2064LB		LM-2064MB		LM-2064MUM				Unit	Conditions
		Bright red		Green		Red		Green			
		Typ	Max	Typ	Max	Typ	Max	Typ	Max		
Forward voltage	$V_F$	1.75	2.5	2.1	2.8	2.0	2.8	2.1	2.8	V	$I_F = 10\text{ mA}, 20\text{ mA}$ for LM-2064LB
Reverse current	$I_R$		100		100		100		100	$\mu\text{A}$	$V_R = 3\text{ V}, 4\text{ V}$ for LM-2064LB
Peak wavelength	$\lambda_p$	660		563		635		563		nm	$I_F = 10\text{ mA}, 20\text{ mA}$ for LM-2064LB
Spectral half-width	$\Delta\lambda$	25		40		40		40		nm	$I_F = 10\text{ mA}, 20\text{ mA}$ for LM-2064LB

**Note:** For bright red displays, characteristics measured at  $I_F = 2\text{ mA}$ ,  $V_R = 4\text{ V}$

### Luminous intensity

Part no.	Color	Min	Typical	Max	Unit	Conditions
LM-2064LB	Bright red	1.7	5.0		mcd	$I_F = 20\text{ mA}$
LM-2064MB	Green	0.56	1.6	1.6	mcd	$I_F = 10\text{ mA}$
LM-2064MUM	Red	0.56	1.6		mcd	$I_F = 10\text{ mA}$
	Green	0.9	2.5		mcd	$I_F = 10\text{ mA}$