

LM-0701 series

7 × 10 dot matrix display, single or dual color, 2.4 mm diameter element

The LM-0701 series are 7 × 10 dot matrix displays. They are available with 2.4 mm diameter elements.

Features

- 7 × 10 dot matrix; with round ($\phi = 2.4$ mm) emitters, external dimensions 28 × 19.6 × 6.2 mm
- available in bright red single color and 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

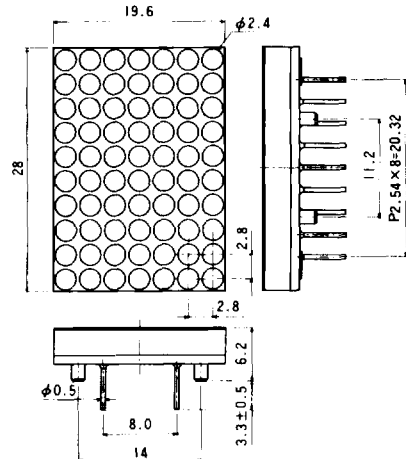
- alpha displays
- numeric displays
- graphic displays

Selection guide

Part no. Color & wavelength Common pin Availability	LM-0701LB Bright red, 660 nm Anode semi-standard	
Part no. Color & wavelength Common pin Availability		LM-0701MUM Red, 635 nm, green, 535 nm Cathode semi-standard

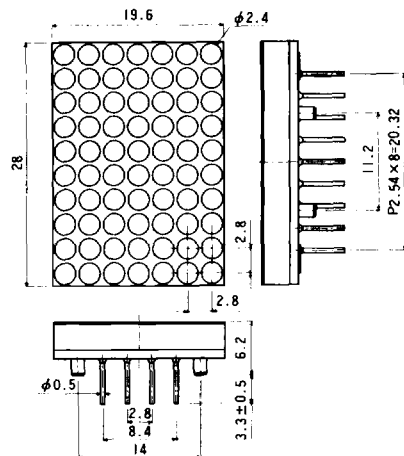
Dimensions (Units : mm)

Single color



All tolerances ± 0.3 unless otherwise noted

Two color

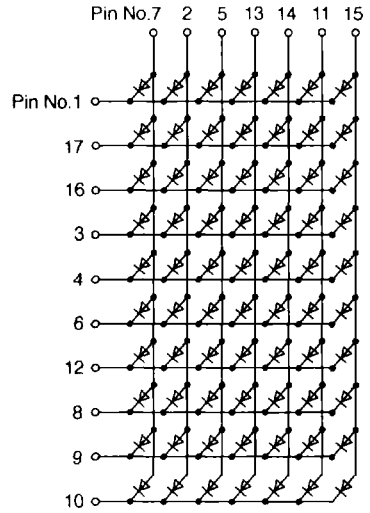
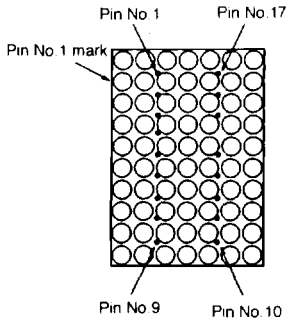


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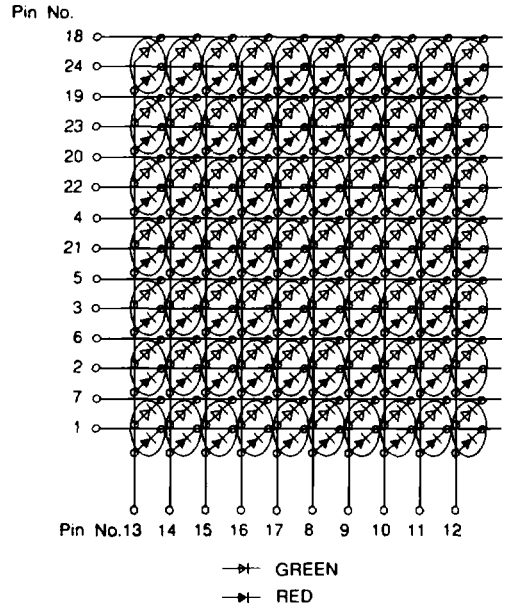
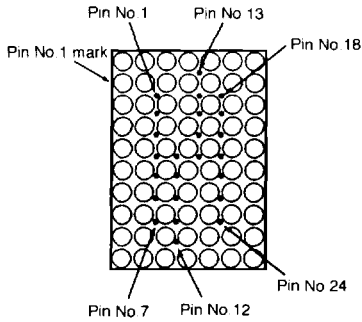
LM-0701 series Dot matrix display

Pin connections

Single color



Two color



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

Parameter	Symbol	Limits			Unit	Conditions
		LM-0701 LB	LM-0701MUM			
		Bright red	Red	Green		
Power dissipation	P_d	2.0	35	35	mW	LM-0701MUM units are mW/dot
Forward current	I_F	30	15		mA	
Peak forward current	I_{FP}	80	60		mA	Pulse width 1 ms, duty 10% for LM-0701MUM, duty 14% for LM-0701LB
Reverse voltage	V_R	3	3		V	
Operating temperature	T_{opr}	-25 ~ +60	-20 ~ +50		$^\circ\text{C}$	
Storage temperature	T_{stg}	-30 ~ +85	-25 ~ +75		$^\circ\text{C}$	

Single color display—electro-optical characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	LM-0701LB		LM-0701MUM				Unit	Conditions
		Bright red		Red		Green			
		Typ	Max	Typ	Max	Typ	Max		
Forward voltage	V_F	1.75	2.5	2.0	2.8	2.1	2.8	V	$I_F = 10\text{ mA}$, 20 mA for LM-0701LB
Reverse current	I_R		10		100		100	μA	$V_R = 3\text{ V}$, 4V for LM-0701LB
Peak wavelength	λ_p	660		635		563		nm	$I_F = 10\text{ mA}$, 20 mA for LM-0701LB
Spectral half-width	$\Delta\lambda$	25		40		40		nm	$I_F = 10\text{ mA}$, 20 mA for LM-0701LB

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-0701LB	Bright red	1.4	5.0		mcd	$I_F = 20\text{ mA}$
LM-0701MUM	Red	0.56	1.6		mcd	$I_F = 10\text{ mA}$
	Green	0.9	2.5		mcd	$I_F = 10\text{ mA}$