

16 × 16 matrix displays

LM-1256 Series

The LM-1256 series are 16 × 16 matrix displays which can be used in a wide variety of applications, including alpha-bet, numeric, symbol, and graphic displays. Bright red and red are available, as well as a dual-color red/green type.

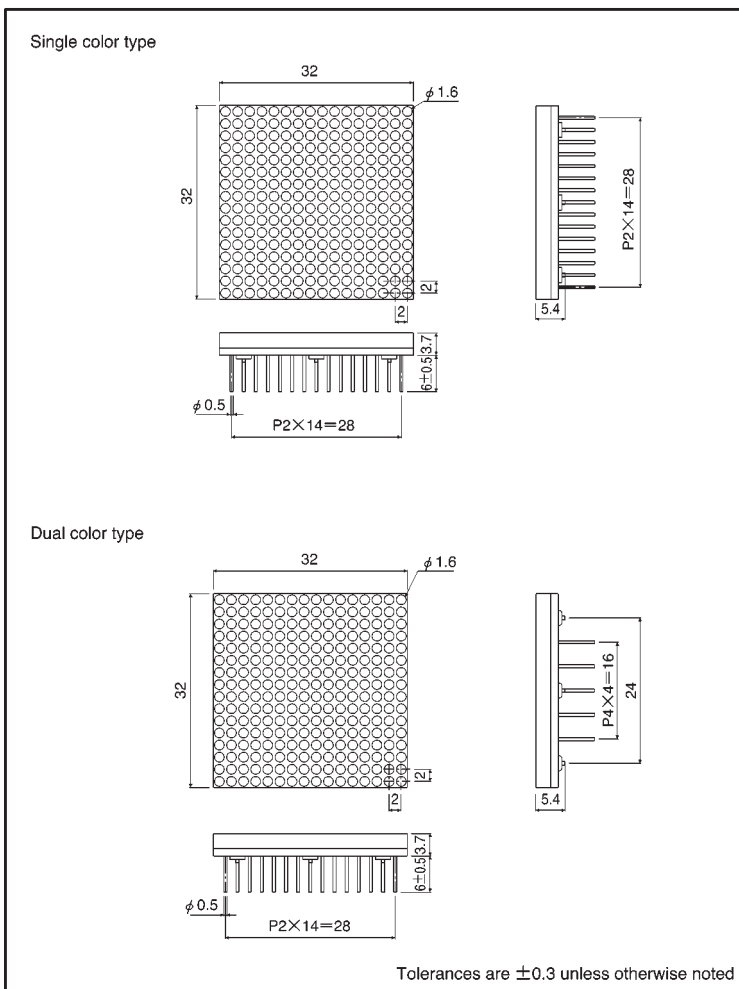
●Applications

Light sources for displays

●Features

- 1) 16 × 16 dot matrix
Circular emitters.
- 2) External dimensions: 32 × 32 × 5.4 mm
- 3) Emitters: Circular, 1.6 mm diameter
- 4) Black package.

●External dimensions (Units: mm)



●Selection guide

Emitting color	Red*	Red	Red / Green
Common			
Anode	LM-1256LB	—	—
Cathode	—	LM-1256VB	LM-1256MUM

* Bright red

Diagram of a 16x16 grid of pins for a dual color type. The grid is labeled with columns 1-16 and rows A-P. Pins are numbered 1-38. Pin No. 1 is at row E, column 1. Pin No. 11 is at row E, column 16. Pin No. 23 is at row H, column 16. Pin No. 25 is at row I, column 16. Pin No. 37 is at row J, column 16. Pin No. 38 is at row M, column 1. Pin No. 48 is at row M, column 16. The grid is labeled "Dual color type" at the bottom.

Dual-color type

Pin No.	Connection	Pin No.	Connection	Pin No.	Connection	Pin No.	Connection
1	R1 Cathode	13	G2 Cathode	25	F Anode	37	R16 Cathode
2	R2 Cathode	14	G3 Cathode	26	L Anode	38	J Anode
3	R3 Cathode	15	G4 Cathode	27	M Anode	39	P Anode
4	R4 Cathode	16	G5 Cathode	28	N Anode	40	O Anode
5	R5 Cathode	17	G6 Cathode	29	I Anode	41	G9 Cathode
6	R6 Cathode	18	G7 Cathode	30	R9 Cathode	42	G10 Cathode
7	R7 Cathode	19	G8 Cathode	31	R10 Cathode	43	G11 Cathode
8	R8 Cathode	20	H Anode	32	R11 Cathode	44	G12 Cathode
9	B Anode	21	C Anode	33	R12 Cathode	45	G13 Cathode
10	A Anode	22	D Anode	34	R13 Cathode	46	G14 Cathode
11	G Anode	23	E Anode	35	R14 Cathode	47	G15 Cathode
12	G1 Cathode	24	K Anode	36	R15 Cathode	48	G16 Cathode

● Absolute maximum ratings (Ta = 25°C)

Single-color type

Parameter	Symbol	LB	VB	Unit
		Red*2	Red	
Power dissipation	P _D	2.4	2.7	W
Forward current	I _F	15	15	mA
Peak forward current	I _{FP}	60*1	60*1	mA
Reverse voltage	V _R	3	3	V
Operating temperature	T _{opr}	-20~+50		°C
Storage temperature	T _{stg}	-25~+75		°C

*1 Pulse width 1msec duty 1 / 16

*2 Bright red

Dual-color type

Parameter	Symbol	MUM		Unit
		Red	Green	
Power dissipation	P _D	2.7	2.7	W
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~+50		°C
Storage temperature	T _{stg}	-25~+75		°C

* Pulse width 1msec duty 1 / 16

●Electrical and optical characteristics (Ta = 25°C)

Single-color type

Parameter	Symbol	Conditions	LB			VB			Unit
			Red*1			Red			
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V _F	I _F =10mA	—	1.75	2.5	—	2.0	2.8	V
Reverse current	I _R	V _R =3V	—	—	100	—	—	100	μA
Peak wavelength	λ _P	I _F =10mA	—	660	—	—	650	—	nm
Spectral half-power bandwidth	Δλ	I _F =10mA	—	25	—	—	40	—	nm

◎Not designed for radiation resistance.

*1 I_F = 20mA

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 half-power bandwidth	Δ λ	I _F =10mA	—	40	—	—	40	—	nm

◎Not designed for radiation resistance.

●Luminous intensity

Color	Type	Min.	Typ.	Max.	Unit
Red*1	LB	0.9	2.5	—	mcd
Red	VB	0.22	0.63	—	mcd
Red	MUM	0.22	0.63	—	mcd
Green		0.56	1.6	—	mcd

Note: Measured at I_F = 10mA*1 I_F = 20mA