5×7 matrix displays

LM-2035 Series

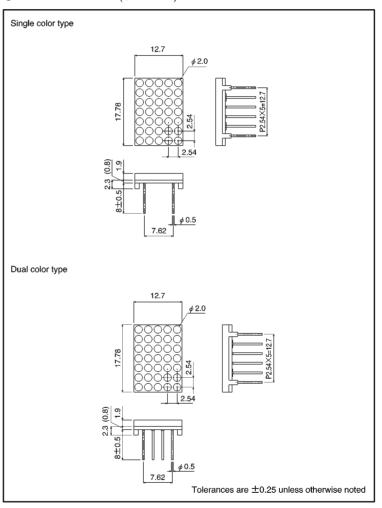
The LM-2035 series are 5×7 matrix displays which can be used in a wide variety of applications, including alphabet, numeric, symbol, and graphic displays. Bright red, red and green are available, as well as a dual-color red/green type.

ApplicationsLight sources for displays

Features

- 5 × 7 dot matrix
 Circular emitters.
- 2) External dimensions: 17.78 × 12.7 × 4.2 mm
- 3) Emitters: Circular, 2.0 mm diameter
- 4) Black package.

External dimensions (Units: mm)



Selection guide

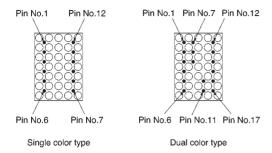
Emitting color Common	Red*	Red	Green	Red / Green	
Anode	LM-2035LB	LM-2035VB	LM-2035MB	_	
Cathode	_	_	_	LM-2035MUM	

^{*} Bright red

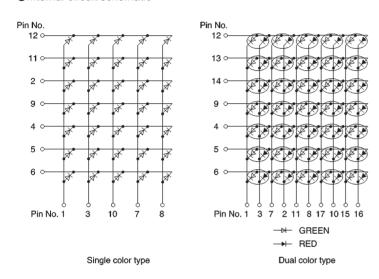


LED displays LM-2035 Series

Pin assignments



●Internal circuit schematic



■Absolute maximum ratings (Ta = 25°C) Single-color type

Parameter	Symbol	LB*2	VB	MB	Unit	
- rarameter	Symbol	Red	Red	Green	Offic	
Power dissipation	P□	1.4	1.23	1.23	W	
Forward current	le	30	15	15	mA	
Peak forward current	IFP	80*1	60*1	60*1	mA	
Reverse voltage	VR	3	3	3	V	
Operating temperature	Topr	-25~ + 60	−25 ^	°C		
Storage temperature	Tstg	-30~+85	-30	°C		

^{*1} Pulse width 1msec duty 1 / 5

^{*2} Bright red

Dual-color type

Parameter	Symbol	ML	Unit		
- arameter	Symbol	Red	Green	J.III	
Power dissipation	Po	35	35	mW/dot	
Forward current	lF	15	15	mA	
Peak forward current	lfp	60*	60*	mA	
Reverse voltage	VR	4	4	V	
Operating temperature	Topr	-20~	Ç		
Storage temperature	Tstg	-25	°C		

^{*} Pulse width 1msec duty 1 / 5

●Electrical and optical characteristics (Ta = 25°C) Single-color type

				LB		VB		MB				
Parameter	Symbol	Conditions		Red*	1		Red			Green		Unit
			Min.	Тур.	Max.	Min.	Тур.	Max.	Min.	Тур.	Max.	
Forward voltage	VF	I=10mA	_	1.75	2.5	_	2.0	2.8	_	2.1	2.8	٧
Reverse current	la	V _R =3V	_	_	10	_	_	100	_	_	100	μΑ
Peak wavelength	λp	I=10mA	_	660	_	_	650	_	_	563	_	nm
Spectral line half width	Δλ	I=10mA	_	25	_	_	40	_	_	40	_	nm

ONot designed for radiation resistance.

Dual-color type

Parameter	Symbol	Conditions		Red		Green			Unit
			Min.	Тур.	Max.	Min.	Тур.	Max.	
Forward voltage	VF	I=10mA	_	2.0	2.8	_	2.1	2.8	٧
Reverse current	lR	V _R =3V	_	_	100	_	_	100	μΑ
Peak wavelength	λР	I=10mA	_	635	_	_	563	_	nm
Spectral line half width	Δλ	I=10mA	_	40	_	_	40	_	nm

ONot designed for radiation resistance.

Luminous intensity

Color	Туре	Min.	Тур.	Max.	Unit
Red*1	LB	1.4	5.0	_	mcd
Red	VB	0.56	1.6	_	mcd
Green	MB	0.9	2.5	_	mcd
Red	B 41 1B 4	0.56	1.6	_	mcd
Green	MUM	0.9	2.5	_	mcd

Note: Measured at IF = 10mA

*1 IF = 20mA



^{*1} IF = 20mA