

LM-0354 series LM-0355 series

5 × 7 dot matrix display, single or dual color, 2.8 or 3.5 mm diameter element

The LM-0354 and LM-0355 series are 5 × 7 dot matrix displays. They are available with 2.8 or 3.5 mm diameter elements.

Features

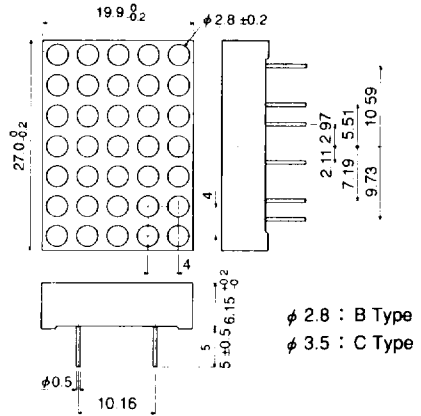
- 5 × 7 dot matrix; with round ($\phi = 2.8$ mm (B-type) or $\phi = 3.5$ mm (C-type)) emitters, external dimensions 27.9 × 19.9 × 6.15 mm
- available in bright red, red, orange, and green single color or bright red and green dual color displays
- package has black-painted surface, segments are tinted
- thin outer casing, multiple units can be coupled together
- clear display
- wide viewing angle

Applications

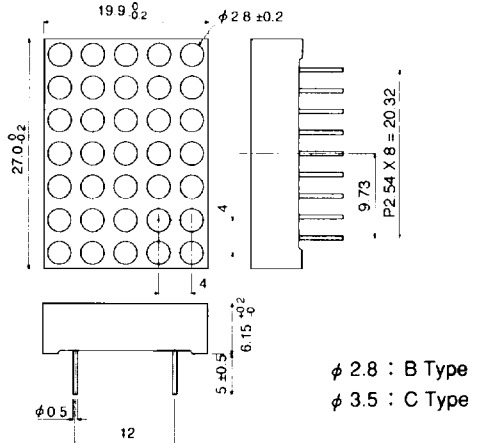
- alpha displays
- numeric displays
- graphic displays

Dimensions (Units : mm)

LM-0354 Single color



LM-0355 Two color

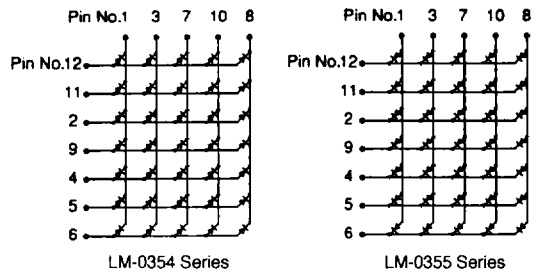
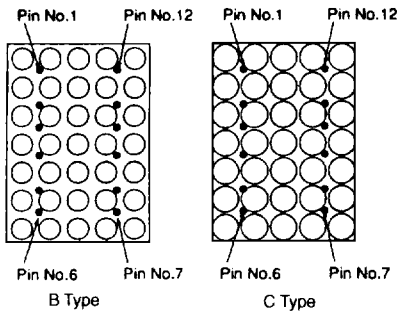


Selection guide

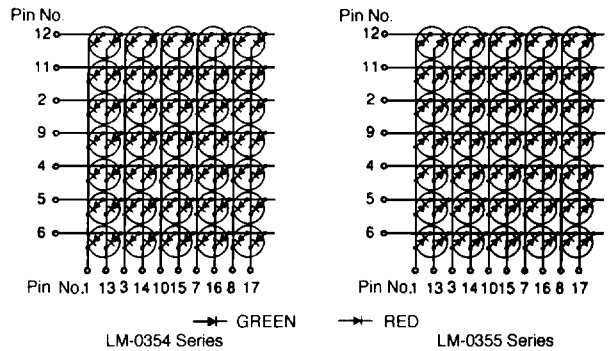
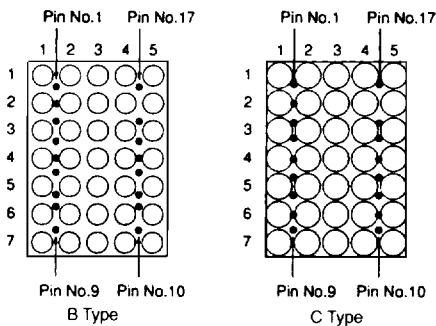
Part no. Color & wavelength Common pin Availability		LM-0355VRB Red, 650 nm Anode semi-standard	LM-0355DUB Orange, 610 nm Anode semi-standard	LM-035MGB Green, 563 nm Anode semi-standard	LM-0355MVWB Red, 650 nm, green, 563 nm Anode semi-standard
Part no. Color & wavelength Common pin Availability	LM-0355LRC Bright red, 660 nm Anode semi-standard	LM-0355VRC Red, 650 nm Anode semi-standard	LM-0355DUC Orange, 610 nm Anode semi-standard	LM-0355MGC Green, 563 nm Anode semi-standard	LM-0355MLWC Br red, 660 nm, green, 563 nm Anode semi-standard
Part no. Color & wavelength Common pin Availability		LM-0354VRB Red, 650 nm Cathode semi-standard	LM-0354DUB Orange, 610 nm Cathode semi-standard	LM-0354MGB Green, 563 nm Cathode semi-standard	
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Pin connections

Single color



Two color



LM-0354 and LM-0355 series Dot matrix display

Single color display—absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Limits		Unit	Conditions
		Bright red	Red, orange, green		
Power dissipation	P_d	2.8	1.23	W	
Forward current	I_F	30	15	mA	
Peak forward current	I_{FP}	60		mA	Pulse width 1 ms, duty 20%
Reverse voltage	V_R	4	3	V	
Operating temperature	T_{opr}	-25 ~ +60	-25 ~ +75	$^\circ\text{C}$	
Storage temperature	T_{stg}	-30 ~ +85		$^\circ\text{C}$	

Two color display—absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	MVWB		MLWC		Unit	Conditions
		Red	Green	Bright red	Green		
Power dissipation	P_d	35	35	35	35	mW	Measurement is for each dot
Forward current	I_F	12.5	12.5	25	12.5	mA	
Peak forward current	I_{FP}	60				mA	Pulse width 1 ms, duty 20%
Reverse voltage	V_R	3	3	3	3	V	
Operating temperature	T_{opr}	-20 ~ +65				$^\circ\text{C}$	
Storage temperature	T_{stg}	-25 ~ +75				$^\circ\text{C}$	

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

Parameter	Sym	Bright red		Red		Orange		Green		Unit	Conditions
		Typ	Max	Typ	Max	Typ	Max	Typ	Max		
Forward voltage	V_F	1.75	2.5	2.0	2.8	2.1	2.8	2.1	2.8	V	$I_F = 10\text{ mA}$
Reverse current	I_R		100		100		100		100	μA	$V_R = 3\text{ V}$
Peak wavelength	λ_p	660		650		610		563		nm	$I_F = 10\text{ mA}$
Spectral half-width	$\Delta\lambda$	25		40		40		40		nm	$I_F = 10\text{ mA}$

Two color display—electro-optical characteristics ($T_a = 25^\circ\text{C}$) (Sheet 1 of 2)

Parameter	Sym	MVWB				MLWC				Unit	Conditions
		Red		Green		Bright red		Green			
		Typ	Max	Typ	Max	Typ	Max	Typ	Max		
Forward voltage	V_F	2.0	2.8	2.1	2.8	1.75	2.5	2.1	2.8	V	$I_F = 10\text{ mA}$

Two color display—electro-optical characteristics (T_a = 25°C) (Sheet 2 of 2)

Parameter	Sym	MVWB				MLWC				Unit	Conditions
		Red		Green		Bright red		Green			
		Typ	Max	Typ	Max	Typ	Max	Typ	Max		
Reverse current	I _R		100		100		100		100	μA	V _R = 3 V
Peak wavelength	λ _p	650		563		660		563		nm	I _F = 10 mA
Spectral half-width	Δλ	40		40		25		40		nm	I _F = 10 mA

Note: For bright red displays, characteristics measured at I_F = 2 mA, V_R = 4 V

Luminous intensity

Part no.	Color	Min	Typical	Max	Unit	Conditions
LM-0355LRC LM-0354LRC	Bright red	2.2	6.3		mcd	I _F = 20 mA
LM-0355VRB LM-0355VRC LM-0354VRB LM-0354VRC	Red	0.56	1.6		mcd	I _F = 10 mA
LM-0355DUB LM-0355DUC LM-0354DUB LM-0354DUC	Orange	0.56	1.6		mcd	I _F = 10 mA
LM-0355MGB LM-0355MGC LM-0354MGB LM-0354MGC	Green	1.4	4.0		mcd	I _F = 10 mA
LM-0355MVWB	Red	0.56	1.6		mcd	I _F = 10 mA
	Green	1.4	4.0		mcd	I _F = 10 mA
LM-0355MLWC LM-0354MLWC	Bright red	2.2	6.3		mcd	I _F = 20 mA
	Green	1.4	4.0		mcd	I _F = 10 mA