



### Feature

1. Available for internal oscilation 2KHz
2. Built-in controller Epson 'SED1520 or Equiv.'
3. 1/32 duty cycle
4. 2.85V ~5V power supply.

### Pin Assignment

Pin	Symbol	Function
1	Vdd	Power Supply (+3V, 5V)
2	Vss	GND
3	Vo	Contrast Adjustment
4	RES	L: reset the LCM
5	E1	Enable Chip 1
6	E2	Enable Chip 2
7	R/W	H: read data L: write data
8	A0	H: D0~D7 are display data L: D0~D7 are display control data
9	DB0	Data bus line
10	DB1	Data bus line
11	DB2	Data bus line
12	DB3	Data bus line
13	DB4	Data bus line
14	DB5	Data bus line
15	DB6	Data bus line
16	DB7	Data bus line
17	A	+2.1V for LED
18	K	Power supply for B/L (0V)

### Mechanical Data

Item	Standard Value	Unit
Module Dimension	65.4 x 29.1	mm
Viewing Area	54.8 x 19.0	mm
Dot Size	0.36 x 0.41	mm
Dot Pitch	0.4 x 0.45	mm

### Absolute Maximum Rating

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	4.75	5	5.25	V
Input Voltage	VI	0	--	VDD	--

Note 1. LCM should be grounded during handling LCM.

### Electronical Characteristics

Item	Symbol	Condition	Standard Value			Unit
			min.	typ.	max.	
Input Voltage	VDD	VDD=3V±5V	2.7	3.0	3.3	V
Supply Current	IDD	VDD=+3V	--	1.0	1.4	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-V0	0°C	4.5	4.7	4.9	V
		25°C	4.3	4.5	4.7	
		50°C	4.2	4.3	4.5	
LED Forward Voltage	VF	25°C	1.7	2.1	2.5	V
LED Forward Current	IF	25°C	--	100	200	mA
EL Power Supply Current	IEL	Vel=110VAC;400Hz	--	--	5.0	mA