



## PC2002B-O Series (20x2) Character Display

**Features**

- \*20 Character, 2 Line
- \*View Angle 12H or 6H
- \*STN Fluid Yellow, Gray or Blue
- \*Extended Temperature Range available
- \*LED Backlight available
- \*RoHS Compliant



### Absolute Maximum Ratings at T<sub>A</sub> = 25°C

Item	Symbol	Min	Max	Unit
Power Supply (Logic)	Vdd	-0.3	7.0	V
Power Supply (LCD)	Vlcd (Vdd-Vo)	-13.5	0.3	V
Input Voltage	Vi	-0.3	Vdd+0.3	V
Operating Temperature (Standard)	Topr	0	50	°C
Storage Temperature (Standard)	Tstg	-10	60	°C
Extended Operating Temperature	Topr	-20	70	°C
Extended Storage Temperature	Tstg	-30	80	°C

### Electrical Characteristics at T<sub>A</sub> = 25°C, Vdd=5V±0.25V

Item	Symbol	Min	Typ	Max	Unit
Power Supply (Logic)	Vdd-Vss	4.5	5.0	5.5	V
Supply Current	Idd	1.5	2.0	3.5	mA
LCD Driving Voltage	Vdd -Vo	4.0	4.6	5.0	V
LCD Driving Current	Ilcd	-	0.2	0.4	mA

### Interface Pin Connection

No	Symbol	Function	No	Symbol	Function
1	Vss	Power Supply (GND)	9	DB2	Data Bus Line 2
2	Vdd	Power Supply (+5V)	10	DB3	Data Bus Line 3
3	Vo	Contrast Adjust	11	DB4	Data Bus Line 4
4	RS	Instruction/Register Select	12	DB5	Data Bus Line 5
5	R/W	Read/Write	13	DB6	Data Bus Line 6
6	E	Enable Signal	14	DB7	Data Bus Line 7
7	DB0	Data Bus Line 0	15	A	Power Supply for LED Backlight (+)
8	DB1	Data Bus Line 1	16	K	Power Supply for LED Backlight (-)

### LED Backlight Specifications

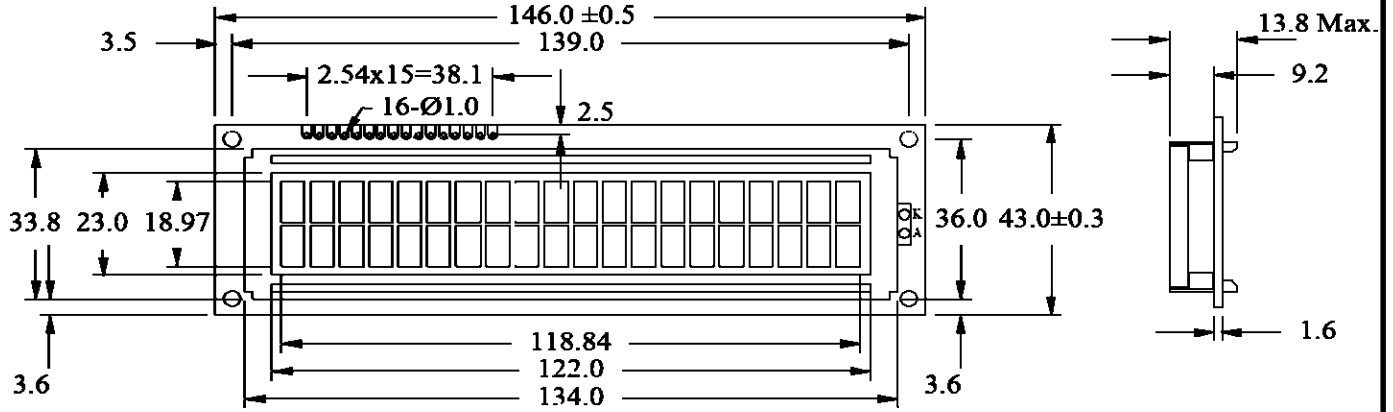
Forward Voltage	Forward Current	Power Dissipation	Peak Wavelength
4.3V (Max)	100mA (Max)	410mW (Max)	570nm (Typ)

### Mechanical Specifications

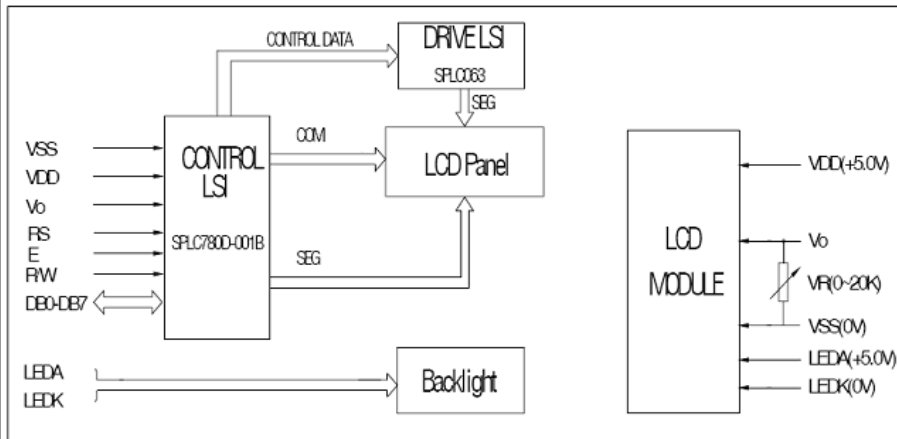
Item	Overall Size	Viewing Area	Character Size	Character Pitch	Dot Size
Specifications	146.0W x 43.0H x 10.0/BL14.0T	123.0W x 23.0H	4.84W x 9.22H	6.00x9.75	0.92W x 1.10H

All dimensions are in mm. Tolerance is ± 0.3 Unless otherwise specified

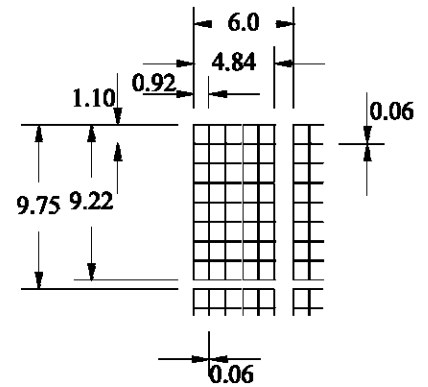
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### LCD Block Diagram



### Dot Layout



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