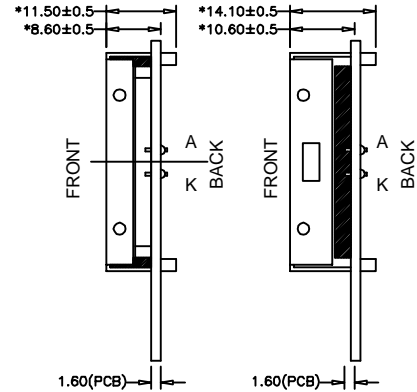
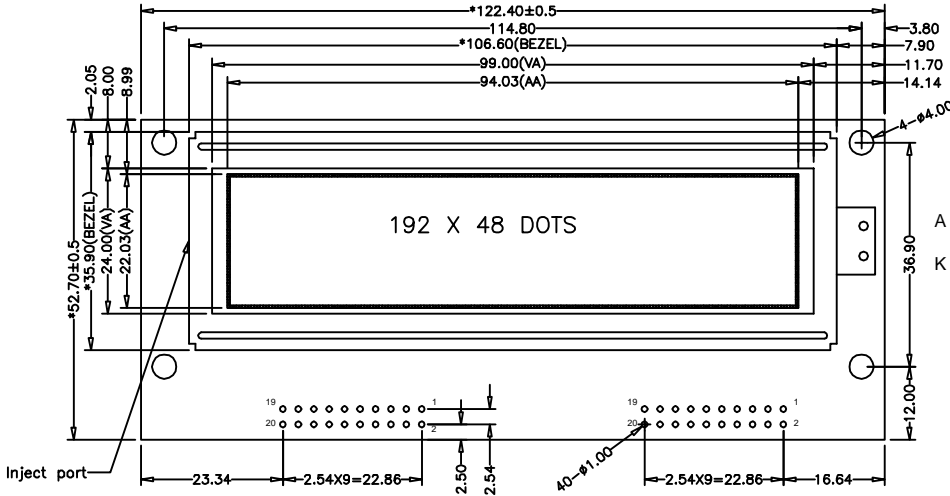
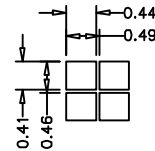


# PG-190401 Series

## OUTLINE DIMENSION



WITH LED B/L



Dot Size

### MECHANICAL DIMENSION

Overall Dimension (mm)	122.4 X 52.7 X 11.5/14.1
Viewing Area (mm)	99.0 X 24.0
Format	192 SEG × 48 COM
Dot Size (mm)	0.44 X 0.41
Dot Pitch (mm)	0.49 X 0.46

### ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	MIN	MAX	Unit
Supply Voltage for Logic	V <sub>dd-Vss</sub>	-0.3	+7.0	V
Supply Voltage for LCD	V <sub>lcd</sub>		+13.0	V
Input Voltage	V <sub>in</sub>	-0.3	V <sub>dd</sub> + 0.3	V

### ELECTRICAL CHARACTERISTICS (V<sub>DD</sub>=5.0V ; Top=25° C)

Parameter	Symbol	MIN	Typical	MAX	Unit
Power Supply Voltage	V <sub>dd-Vss</sub>		5.0		V
LCD Operating Voltage	V <sub>op</sub>		9.0		V
LCM Current Consumption	I <sub>dd</sub>				mA
Backlight Current Consumption	LED (Edge)				mA
	LED (Array)				mA
Driving Method		1/48 Duty 1/8 Bias			

### NOTES

**IC Controller / Driver:** SBN0064G, SBN6400G  
**LCD Options:** Y/G STN, FSTN, Blue STN  
**Backlight Options:** Y/G LED, White LED  
**Viewing Angle Options:** 6:00, 12:00  
**Operating Temperature Options:** -0° C ~ +50° C / -20° C ~ +70° C  
**Storage Temperature Options:** -20° C ~ +70° C / -30° C ~ +80° C

### PIN ASSIGNMENT

Pin No.	Symbol	Function
1	VSS	Power Supply (GND)
2	VDD	Power Supply (+)
3	V0	Contrast Adjust
4	RS	
5	R/W	Data Read / Write
6	E	Enable Signal
7	DB0	Data Bus Line
8	DB1	Data Bus Line
9	DB2	Data Bus Line
10	DB3	Data Bus Line
11	DB4	Data Bus Line
12	DB5	Data Bus Line
13	DB6	Data Bus Line
14	DB7	Data Bus Line
15	LEDA	Power Supply for LED B/L (-)
16	LEDK	Power Supply for LED B/L (+)
17	LED1	
18	LED2	
19	R/W	Data Read / Write
20	E	Enable Signal