



## Graphic Type

### Feature :

- 128x64 dot-matrix
- STN/Transflective/Positive/Yellow-Green
- Backlight type: Yellow Green/Side Backlight
- Operating Temp.: -20°C ~ +70°C
- 1/64 duty cycle, 1/9 Bias
- Built-in Controller (SBN0064G or equivalent)
- Viewing angle: 6 o'clock

### Absolute Maximum Rating :

Item	Symbol	Standard value			Unit
		M <sub>IN</sub>	T <sub>YP</sub>	M <sub>AX</sub>	
Power supply for logic	V <sub>DD</sub> -V <sub>SS</sub>	-0.3	--	7.0	V
Input voltage	V <sub>I</sub>	-0.3	--	V <sub>DD</sub> +0.3	V

### Electrical Characteristic : (V<sub>SS</sub>=0V, T<sub>a</sub> = 25°C)

Parameter	Symbol	Condition	M <sub>IN</sub>	T <sub>YP</sub>	M <sub>AX</sub>	Unit
Supply voltage for logic	V <sub>DD</sub>	--	4.8	5.0	5.2	V
Supply current for logic	I <sub>DD</sub>	--	--	2.5	--	mA
Operating voltage for LCD	V <sub>LCD</sub>	-20°C	--	--	--	V
		+25°C	--	9.0	--	V
		+70°C	--	--	--	V
Supply voltage for Backlight	V <sub>BL</sub>	--	--	5.0	--	V
Supply current for Backlight	I <sub>BL</sub>	--	--	60	--	mA

### Interface Pin Connections :

Pin No.(CN1)	Symbol	Level	Description
1	/CS1	H/L	Chip Selection When /CS1=0, Left area is Selection
2	/CS2	H/L	Chip Selection When /CS2=0, Right area is Selection
3	VSS	0V	Ground.
4	VDD	+5.0V	Supply voltage for logic operating.
5	V0	--	Adjusting voltage for LCD driving (variable).
6	D/I	H/L	In parallel bus mode register select 1: Data Register, 0: Instruction Register, Busy flag-Address Counter.
7	R/W	H/L	In parallel bus mode Read write control 0: write 1: read
8	E	H/L	In parallel bus mode Enable trigger
9-16	DB0-DB7	H/L	8-bit bi-directional data bus.
17	RST	H/L	System reset low active
18	VEE	H/L	Extemal negative power supply for LCD bias
19	LED+	+5.0V	Power supply for Backlight
20	NC	--	

### Adjusting Display Contrast :

