



Feature

- 1. 122x32 dots includes cursor
- 2. Built-in controller (SBN1661G or Equivalent)
- 3. +5V power supply (Also available for +3V)
- 4. 1/32 duty cycle
- 5. LED can be driven by pin1, pin2, or A and K
- 6. Available for internal (A type), External (C type) oscillation 2KHz

Mechanical Data

Item	Value	Unit
Outline	84.0 x 44.0	mm
Viewing Area	60.0 x 18.0	mm
Active Area	53.64 x 15.64	mm
Dot Size	0.4 x 0.45	mm
Dot Pitch	0.44 x 0.49	mm

Terminal Function

Pin No.	Symbol	Function
1	V _{SS}	GND
2	V _{DD}	Supply voltage for logic
3	V _O	Contrast Adjustment
4	RS	Register select
5	CS1	L → Chip 1 Enable
6	CS2	L → Chip 2 Enable
7	NC/CL	NC (A type) / External clock 2KHz (C type)
8	NC/E	NC (A type) / Enable signal (C type)
9	R/W	H → read data L → write data
10-17	DB0-DB7	Data bus line
18	RES	Reset the LCM
19	A/V _{ee}	Backlight LED+ or Negative Voltage output
20	K	Backlight LED-

Electrical Characteristics

Item	Symbol	Min	Typ	Max
Operating Voltage (V)	V _{DD}	4.7	5.0	5.3
Supply Voltage For LCD	V _{DD} - V _O	—	4.7	—
Input High Voltage (V)	V _{IH}	0.7	—	V _{DD}
Input Low Voltage (V)	V _{IL}	V _{SS}	—	0.6
Operating Current (mA)	I _{DD}	—	0.6	0.8

Backlight Characteristics

Item	Symbol	Min	Typ	Max	Unit
Forward Voltage	V _f (edge)	3.4	3.5	3.6	V
Forward Current	I _f (edge)	38	32	40	mA
Forward Voltage	V _f (array)	-	4.2	4.4	V
Forward Current	I _f (array)	-	120	-	mA

Absolute Maximum

Item	Symbo	Min	Max
Operating Voltage (V)	V _{dd}	-0.3	5.5
Operating Temperature (°C)	Top	-20	+70
Storage Temperature (°C)	T _{st}	-30	+80