



Feature

1. 240x64 dots includes cursor
2. Built-in controller (RA6963 or equivalent)
3. +5V power supply(Also available for +3V)
4. 1/64duty cycle
5. LED can be driven by pin2, pin3, or A and K

Mechanical Data

Item	Value	Unit
Outline	180.0 x 65.0	mm
Viewing Area	133.0 x 39.0	mm
Active Area	127.16 x 33.88	mm
Dot Size	0.49 x 0.49	mm
Dot Pitch	0.53 x 0.53	mm

Terminal Function

Pin No.	Symbol	Function
1	FG	Frame ground
2	V _{SS}	GND
3	V _{DD}	Supply voltage for logic
4	V ₀	Contrast Adjustment
5	/WR	Data write s
6	/RD	Data read
7	/CE	H-L Enable signal
8	C/D	Command/data read/write
9	V _{ee}	Negative Voltage output
10	/RST	Reset signal
11-18	DB0-DB7	H/L Data bus line
19	FS	FS="H", 6*8character font FS="L", 8*8character font
20	NC/ V _{ee}	No connection/ Negative Voltage output
21	A	Backlight LED+
22	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 ₀	—	12.5	—
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}	—	45	50

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)	48	64	80	mA
Forward Voltage	V _f (array)	-	4.2	4.4	V
Forward Current	I _f (array)	-	660	900	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)	Tst	-30	+80