

## ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	$V_{DD} - V_{SS}$	-0.3	5.25	V
Supply Voltage(LCD)	$V_o - V_{SS}$	-0.3	7.0	V
Input Voltage	$V_i$	-0.3	$V_{DD} + 0.3$	V
Operating Temp.	$T_{opr}$	-20	70	°C
Storage Temp.	$T_{stg}$	-30	80	°C

## MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	74.0 x 40.0 x 13.5	mm
Viewing Area (W x H)	60.5 x 18.5	mm
Dot Pitch (W x H)	0.44 x 0.49	mm
Dot Size (W x H)	0.40 x 0.45	mm
Weight	Approx. 35	g

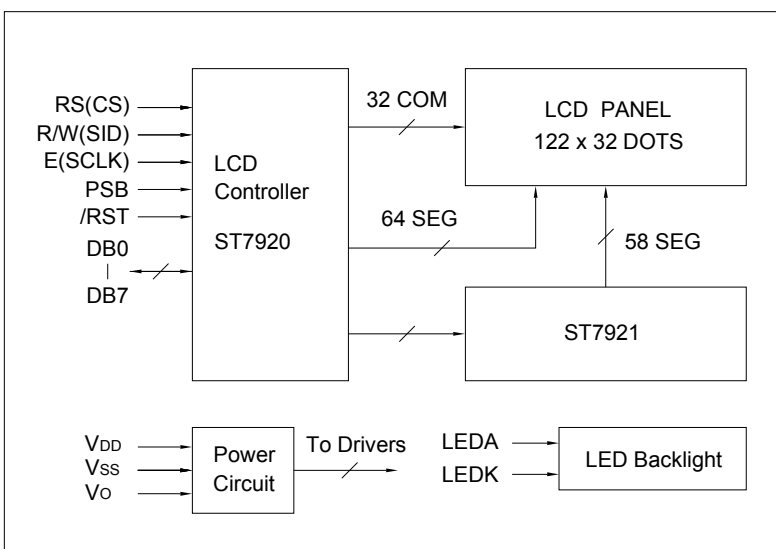
## ELECTRICAL CHARACTERISTICS ( $V_{DD}=5V \pm 0.15V$ )

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	$V_{IH}$	--	$0.7V_{DD}$	--	$V_{DD}$	V
Input Low Voltage	$V_{IL}$	--	-0.3	--	0.6	V
Output High Voltage	$V_{OH}$	$I_{OH} = -0.1mA$	$0.8V_{DD}$	--	$V_{DD}$	V
Output Low Voltage	$V_{OL}$	$I_{OL} = 0.1mA$	0	--	0.4	V
Supply Current	$I_{DD}$	$V_{DD} = 5.0V$	--	3.0	5.0	mA
LCD Driving Voltage	$V_o - V_{SS}$	$T_a = 25^\circ C$	--	6.5	--	V

## PIN CONNECTIONS

Pin	Symbol	Level	Function
1	$V_{SS}$	0V	GND
2	$V_{DD}$	5V	Supply Voltage for Logic
3	$V_o$	--	No connection
4	RS (CS)	H/L	H : Data L : Instruction code (Chip enable for serial mode)
5	R/W (SID)	H/L	H : Read L : Write (Serial data for serial mode)
6	E(SCLK)	H,H→L	Enable (Clock for serial mode)
7	DB0	H/L	Data bus
8	DB1	H/L	
9	DB2	H/L	
10	DB3	H/L	
11	DB4	H/L	
12	DB5	H/L	
13	DB6	H/L	
14	DB7	H/L	
15	PSB	H/L	H: Parallel mode L: Serial mode
16	/RST	H/L	Reset signal. Active "L".
17	LEDA	5V	Power supply for LED backlight
18	LEDK	0V	

## BLOCK DIAGRAM



## LED BACKLIGHT SPECIFICATIONS ( $T_a=25^\circ C$ )

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	$V_f$	2.9	3.0	V
Forward Current	$I_f$	18	--	mA
LED Color		White		