

### ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	$V_{DD} - V_{SS}$	-0.3	7.0	V
Supply Voltage(LCD)	$V_{DD} - V_o$	-0.3	13.5	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 )	75.0 x 54.0 x 10.0/14.0	mm
Viewing Area ( W x H )	62.0 x 27.0	mm
Dot Pitch ( W x H )	0.475 x 0.65	mm
Dot Size ( W x H )	0.425 x 0.6	mm
Weight (Reflective/LED)	Approx. 45 / 60	g

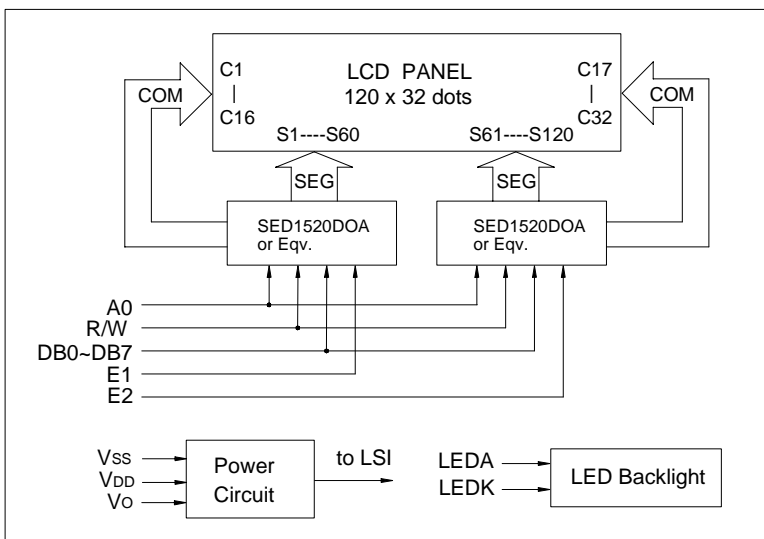
### ELECTRICAL CHARACTERISTICS ( $V_{DD}=5V \pm 0.25V$ )

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	$V_{IH}$	--	2.0	--	$V_{DD}$	V
Input Low Voltage	$V_{IL}$	--	-0.3	--	0.8	V
Output High Voltage	$V_{OH}$	$I_{OH} = -3.0mA$	2.4	--	$V_{DD}$	V
Output Low Voltage	$V_{OL}$	$I_{OL} = 3.0mA$	0	--	0.4	V
Supply Current	$I_{DD}$	$V_{DD} = 5.0V$	--	1.0	1.5	mA
LCD Driving Voltage	$V_{DD} - V_o$	$T_a = 25^\circ C$	--	7.5	--	V

### PIN CONNECTIONS

Pin	Symbol	Level	Function
1	$V_{SS}$	0V	GND
2	$V_{DD}$	+5V	Power supply for logic
3	$V_o$	--	Operating voltage for LCD
4	A0	H/L	H : Data L : Instruction code
5	R/W	H/L	H : Read L : Write
6	E1	H,H > L	Enable signal 1
7	E2	H,H > L	Enable signal 2
8	NC	--	No connection
9	DB0	H/L	Data Bus Line
10	DB1	H/L	
11	DB2	H/L	
12	DB3	H/L	
13	DB4	H/L	
14	DB5	H/L	
15	DB6	H/L	
16	DB7	H/L	
17	LEDA	+4.1V	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	$V_f$	4.1	4.3	V
Forward Current	$I_f$	200	--	mA
Emission Wave Length	$\lambda_p$	568	--	nm