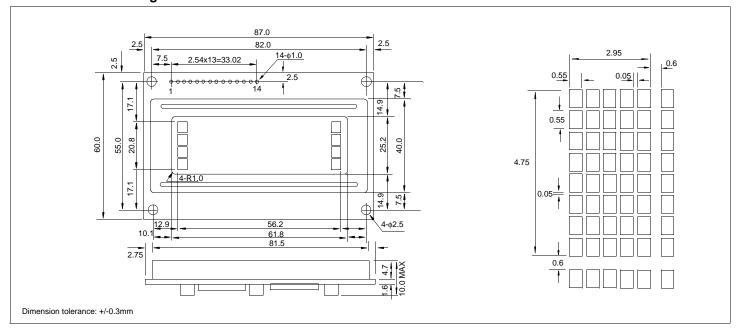
### 16 Character x 4 Lines

# **Dimensional Drawing**



#### **Features**

Character Format ......5x7 Dots with Cursor Backlight.....EL Optional Options....TN/Gray STN/Yellow STN, 12 o'Clock/6 o'Clock View Normal/Extended Temperature Normal/Negative Displays

### **Physical Data**

Module Size......87.0W x 60.0H x 10.0T mm Viewing Area Size......61.8W x 25.2H mm Weight......45g

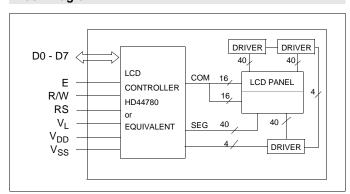
### **Absolute Maximum Ratings**

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	$V_{DD}$ - $V_{SS}$	0	7.0	V
SUPPLY VOLTAGE FOR LCD	$V_{DD}$ - $V_{L}$	0	13.5	V
INPUT VOLTAGE	V <sub>IN</sub>	V <sub>SS</sub>	$V_{DD}$	V
OPERATING TEMPERATURE	T <sub>OP</sub>	0	50	°C
STORAGE TEMPERATURE	T <sub>STG</sub>	-20	70	°C

# Electrical Characteristics (VDD=5.0±0.25V 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT HIGH VOLTAGE	V <sub>IH</sub>	-	2.2	-	-	V
INPUT LOW VOLTAGE	$V_{IL}$	-	-	-	.06	V
OUTPUT HIGH VOLTAGE	$V_{OH}$	I <sub>OH</sub> =0.2mA	2.4	-	-	V
OUTPUT LOW VOLTAGE	V <sub>OL</sub>	I <sub>OL</sub> =1.2mA	-	-	0.4	V
POWER SUPPLY CURRENT	I <sub>DD</sub>	V <sub>DD</sub> =5.0V	-	1.0	2.2	mA
POWER SUPPLY FOR LCD	$V_{DD}$ - $V_{L}$	TA=25°C	4.3	-	4.7	V
DRIVE METHOD	1/16 Duty					

## **Block Diagram**



### **Pin Connections**

PIN NO.	SYMBOL	LEVEL	FUNCTION					
1	$V_{SS}$	-	OV					
2	$V_{DD}$	-	5V	Power supply				
3	$V_L$	-	-					
4	RS	H/L	H: Data input L: Instruction data input					
5	R/W	H/L	H: Data read L: Data write					
6	E	H,H→L	Enable signal					
7	D0	H/L						
8	D1	H/L	Data bus					
9	D2	H/L						
10	D3	H/L						
11	D4	H/L						
12	D5	H/L						
13	D6	H/L						
14	D7	H/L	1					