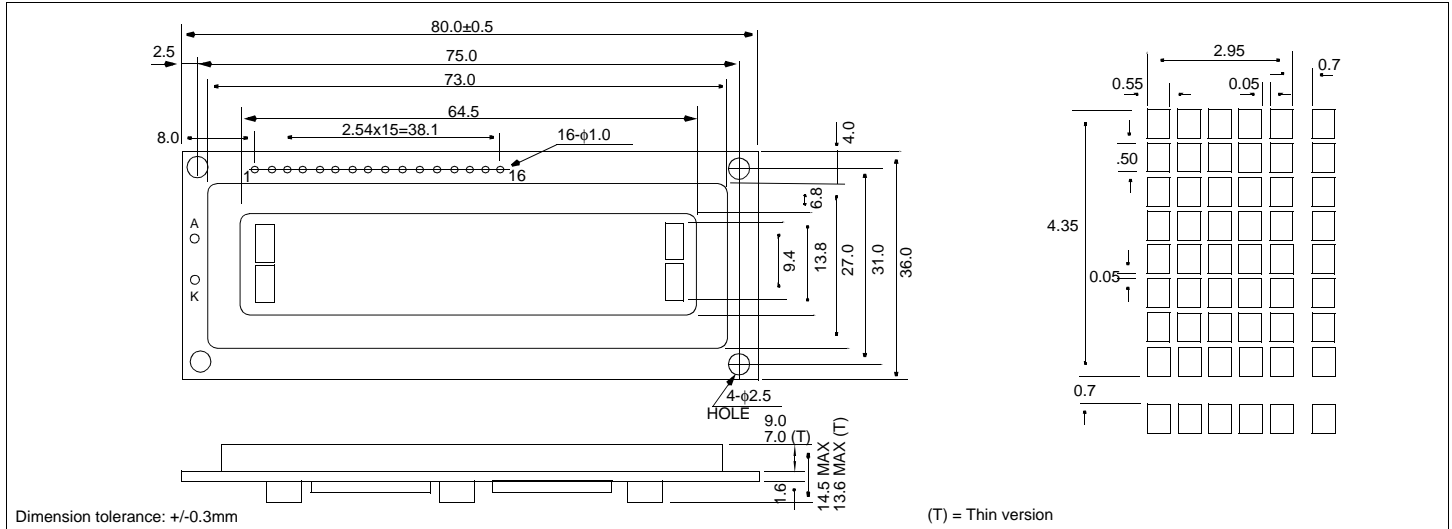


# HDM16216L-5

## Dimensional Drawing

16 Character x 2 Lines LED Backlight, Connector on Top



### Features

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

### Physical Data

Module Size .....80.0W x 36.0H x 14.5T mm  
Thin version.....80.0W x 36.0H x 13.0T mm  
Viewing Area Size.....65.6W x 13.8H mm  
Weight.....35g

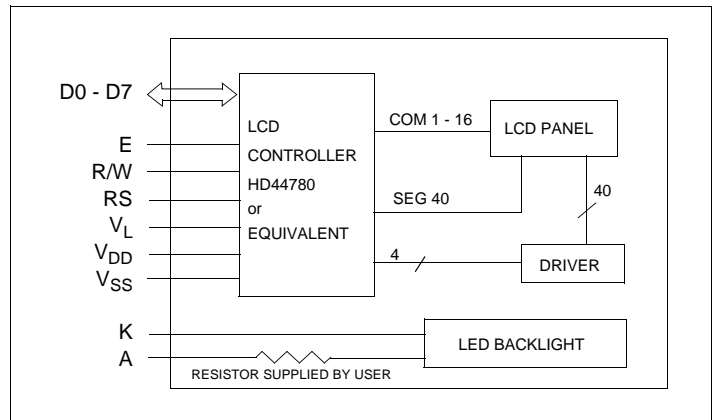
### Absolute Maximum Ratings

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	$V_{IN}$	$V_{SS}$	$V_{DD}$	V
OPERATING TEMPERATURE	$T_{OP}$	0	50	°C
STORAGE TEMPERATURE	$T_{STG}$	-20	70	°C
LED FORWARD CURRENT	$I_F$	-	120	mA
LED REVERSE VOLTAGE	$V_R$	-	8	V
LED POWER CONSUMPTION	$P_D$	-	540	mW

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

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT HIGH VOLTAGE	$V_{IH}$	-	2.2	-	-	V
INPUT LOW VOLTAGE	$V_{IL}$	-	-	-	0.6	V
OUTPUT HIGH VOLTAGE	$V_{OH}$	$I_{OH}=0.2mA$	2.4	-	-	V
OUTPUT LOW VOLTAGE	$V_{OL}$	$I_{OL}=1.2mA$	-	-	0.4	V
POWER SUPPLY CURRENT	$I_{DD}$	$V_{DD}=5.0V$	-	1.0	2.2	mA
POWER SUPPLY FOR LCD	$V_{DD}-V_L$	$T_A=25°C$	4.3	-	4.7	V
LED FORWARD VOLTAGE	$V_F$	$I_F=75mA$	3.9	4.1	4.5	V
BRIGHTNESS	L	$I_F=75mA$	30	50	-	NIT
DRIVE METHOD	1/16 Duty					

### Block Diagram



### Pin Connections

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	$V_{SS}$	-	0V	Power supply
2	$V_{DD}$	-	5V	
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	Data bus	
8	D1	H/L		
9	D2	H/L		
10	D3	H/L		
11	D4	H/L		
12	D5	H/L		
13	D6	H/L		
14	D7	H/L		
15	A	-	Anode for LED backlight	
16	K	-	Cathode for LED backlight	