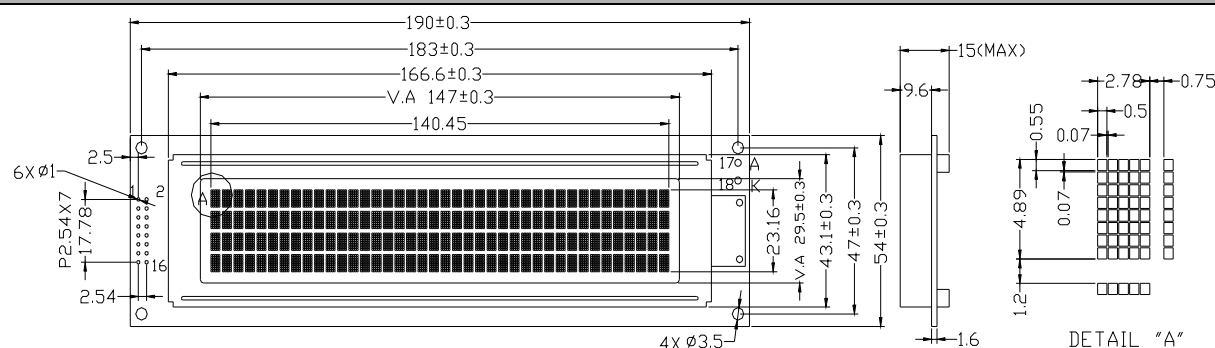


EXTERNAL DIMENSIONS AND DISPLAY PATTERN



MECHANICAL DATA (Nominal dimensions)

ITEM	SPECIFICATION	UNIT
Module Size(WxH)	190.0x54.0	mm
Viewing Area(WxH)	147.0x29.5	mm
Internal Area(WxH)	140.45x23.16	mm
Dot pitch(WxH)	0.57x0.62	mm
Dot Size(WxH)	0.50x0.55	mm
Character Pitch(WxH)	3.53x6.09	mm
Character Size(WxH)	2.78x4.89	mm
Number of character	40characterx4line	char

Absolute Maximum Ratings

Item	Symbol	Condition	Standard Value		unit
			min	max	
Supply Voltage for Logic	V_D-V_S	Ta=25°C	-0.3	7.0	V
Supply Voltage for LCD	V_D-V_E		-0.3	13.0	V
Input Voltage	V_1		0	V_{DD}	V

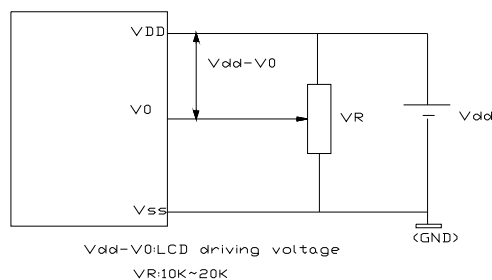
PIN CONFIGURATION

ITEM	SYMBOL	Level	DESCRIPTION
1-8	DB7-DB0	H/L	Data bus
9	E1	H/L	Enable Input 1
10	R/W	H/L	H:Data read
11	RS	H/L	Selects read or write
12	V0	0.3	Power supply voltage for LCD(-)
13	VSS	-	Ground
14	VCC	5.0V	Power supply voltage for Logic and LCD(+)
15	E2	H/L	Enable Input 2
16	NC	-	Not connected
17	LED+	+4.2V	Power supply for LED(+)
18	LED-	0V	Power supply for LED(-)

ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Standard value			Unit
			min.	typ.	max.	
Supply Voltage for Logic	$V_{DD}-V_{SS}$	—	4.5	5.0	5.5	V
Supply Voltage for LCD	$V_{DD}-V_0$	—	—	4.7	—	V
Input high Voltage	V_{IH}	—	$0.7V_{DD}$	—	$V_{DD}+0.3$	V
Input low Voltage	V_{IL}	—	-0.3	—	$0.2V_{DD}$	V
Supply Current for Logic	I_{DD}	—	—	—	3.0	mA
Supply Current for LCD	I_{EE}	—	—	—	1.0	mA
With B/L	I_{LED}	—	—	300	—	mA
Drive method	1/16Duty		1/5Bias			

Power supply



Block diagram

