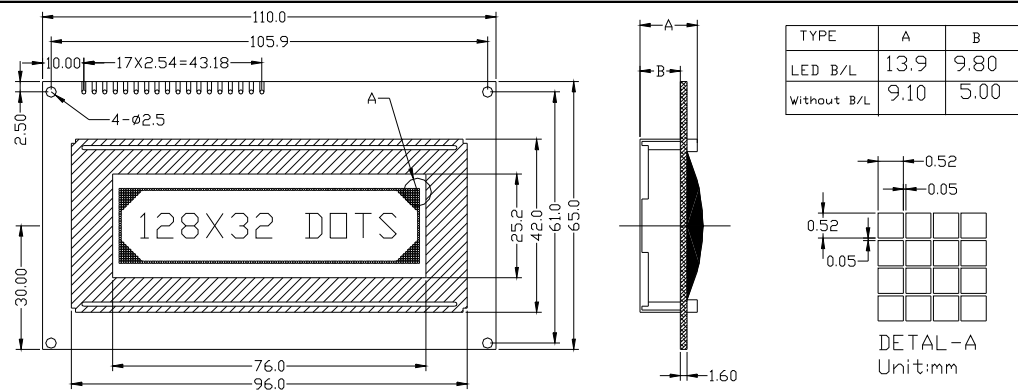


EXTERNAL DIMENSIONS AND DISPLAY PATTERN



MECHANICAL DATA (Nominal dimensions)

ITEM	SPECIFICATION	UNIT
Module Size(WxH)	110.0X65.0	mm
Viewing Area(WxH)	76.0X25.2	mm
Internal Area(WxH)	72.91X18.19	mm
Dot pitch(WxH)	0.57X0.57	mm
Dot Size(WxH)	0.52X0.52	mm
DOTS	128X32	dot

Absolute Maximum Ratings

Item	Symbol	Condition	Standard Value		unit
			min	max	
Supply Voltage for Logic	$V_{DD}-V_{SS}$	$T_a=25^{\circ}\text{C}$	0	5.0	V
Supply Voltage for LCD	$V_{DD}-V_{RE}$		0	5.0	V
Input Voltage	V_i		0	V_{DD}	V

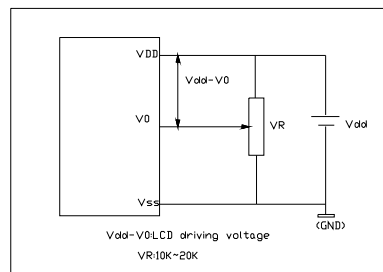
PIN CONFIGURATION

ITEM	SYMBOL	Level	DESCRIPTION
1	VSS	0V	Ground
2	VDD	5.0V	Power supply
3	NC	-	
4	D/I	H/L	Data; Instruction code
5	R/W	H/L	H: Read signal L: Write signal
6	E	H,H/L	Enable signal
7-14	DB0-DB7	-	Data bus
15	PSB	H/L	H: Parallel Mode L: Serial Mode
16	NC	-	
17	/RET	L	Reset signal, RET=0 effective
18	NC	-	
19	VLED+	+5V	Backlight Power supply(+)
20	VLED-	0V	Backlight Power supply(-)

ELECTRICAL CHARACTERISTICS

Power supply

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	$V_{DD}-V_0$	-	4.5	5.0	5.5	V
Input high Voltage	V_{IH}	-	$0.7V_{DD}$	-	V_{DD}	V
Input low Voltage	V_{IL}	-	0	-	$0.3V_{DD}$	V
Supply Current for Logic	V_{OH}	$-I_{OH}=0.2\text{mA}$	-	6.0	-	mA
Supply Current for LCD	V_{OL}	$I_{OL}=1.2\text{mA}$	-	2.0	-	mA
With B/L	I_{LED}	$V_{DD}=5.0\text{V}$	-	180	-	mA
Drive method	1/32Duty		1/5Bias			



Block diagram

