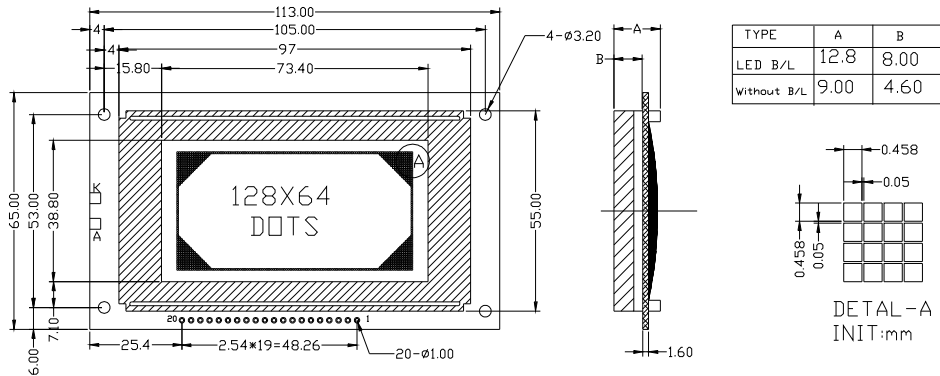




# TG12864A(L)

TINSHARP ELECTRONICS CO.LTD

## EXTERNAL DIMENSIONS AND DISPLAY PATTERN



## MECHANICAL DATA (Nominal dimensions)

ITEM	SPECIFICATION	UNIT
Module Size( WxH )	113. 0x65. 0	mm
Viewing Area( WxH )	73. 4x38. 8	mm
Internel Area( WxH )	64. 974x32. 462	mm
Dot pitch( WxH )	0. 508x0. 508	mm
Dot Size( WxH )	0. 458x0. 458	mm
DOTS	128X64	dot

## PIN CONFIGURATION

ITEM	SYMBOL	Level	DESCRIPTION
1	VSS	0	Ground
2	VDD	+5V	Supply voltage for logic
3	V <sub>0</sub>	-	For LCD drive voltage
4	D/I	H/L	H:Display data L:Dislnlay instruction
5	R/W	H/L	H:Read signalc L:Write signal
6	E	H/L	Enable
7-14	DB0-DB7		Data bus
15	CS1	H/L	H:Read chip signal for IC1
16	CS2	H/L	H:Read chip signal for IC2
17	RET	H/L	Reset signal
18	VEE	-	Negative voltage to LCD
19	LED+	+5V	For LED backlight
20	LED-	0V	For LED backlight

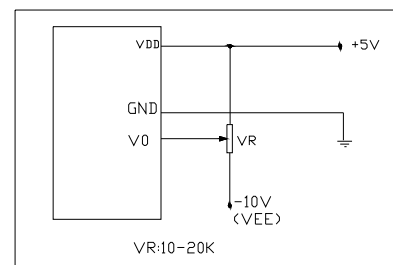
## Absolute Maximum Ratings

Item	Symbol	Condition	Standard Value		unit
			min	max	
Supply Voltage for Logic	V <sub>DD</sub> -V <sub>SS</sub>	Ta=25°C	0	6.5	V
Supply Voltage for LCD	V <sub>DD</sub> -V <sub>BE</sub>		0	18.0	V
Input Voltage	V <sub>i</sub>		0	V <sub>DD</sub>	V

## ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Standard value			Unit
			min.	typ.	max.	
Supply Voltage for Logic	V <sub>DD</sub> -V <sub>SS</sub>	-	4.75	5.0	5.25	V
Supply Voltage for LCD	V <sub>DD</sub> -V <sub>0</sub>	-	-	12.0	-	V
Input high Voltage	V <sub>IH</sub>	-	0.7V <sub>DD</sub>	-	V <sub>DD</sub>	V
Input low Voltage	V <sub>IL</sub>	-	0	-	0.3V <sub>DD</sub>	V
Supply Current for Logic	V <sub>OH</sub>	I <sub>OH</sub> =0.2mA	-	7.0	-	mA
Supply Current for LCD	V <sub>OL</sub>	I <sub>OL</sub> =1.2mA	-	3.0	-	mA
With B/L	I <sub>LED</sub>	V <sub>DD</sub> =5.0V	-	110	-	mA
Drive method			1/64Duty		1/9Bias	

## Power supply



## Block diagram

