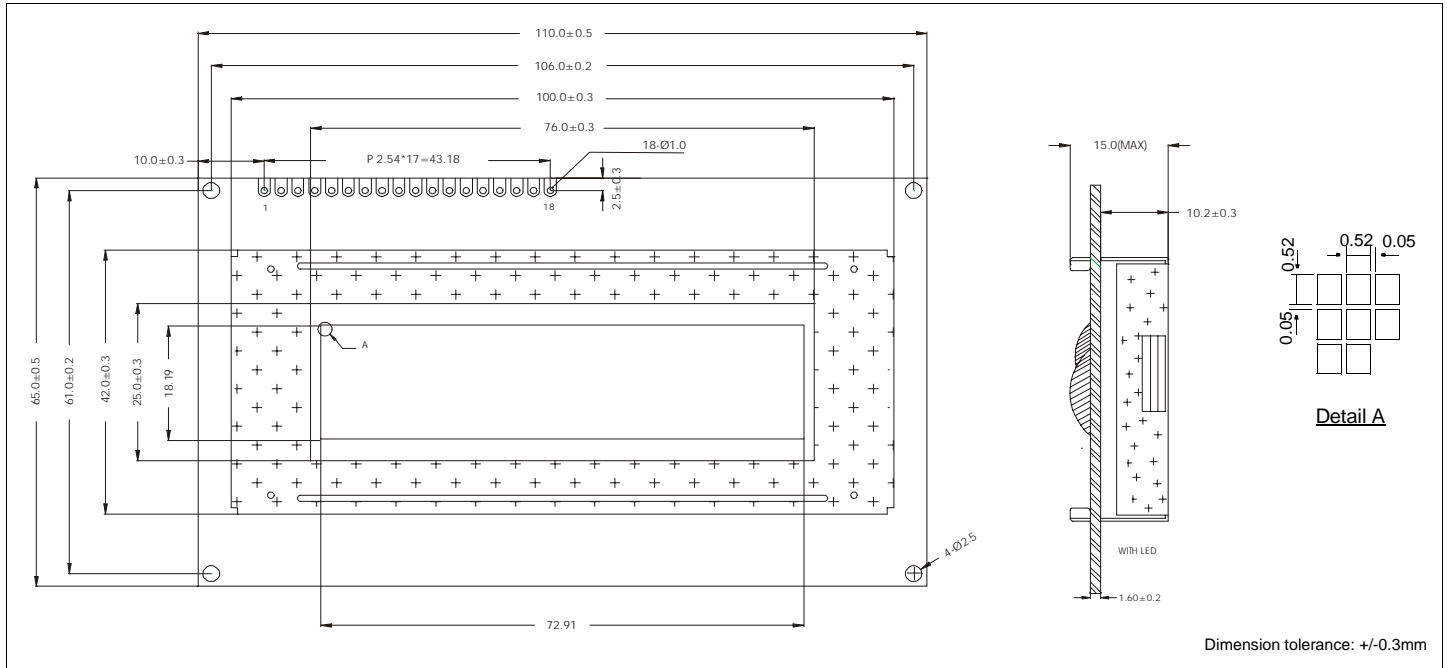


HDM32GS12_-8

Dimensional Drawing

128 X 32 Dots Graphic



Features

Backlight.....LED or None
 Options.....Yellow STN / Gray STN, FSTN
 Normal / Extended Temperature
 Top / Bottom Viewing
 Built-in Controller.....Samsung KS108B

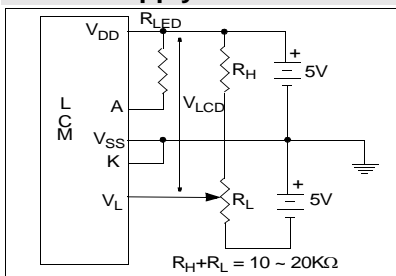
Physical Data

Module Size.....110.0W x 65.0H x 15.0T mm
 Viewing Area Size.....76.0W x 25.0H mm
 Dot Pitch.....0.57W x 0.57H mm
 Dot Size.....0.52W x 0.52H mm
 Weight.....78g

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

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT HIGH VOLTAGE	V _{IH}	-	.8V _{DD}	-	V _{DD}	V
INPUT LOW VOLTAGE	V _{IL}	-	GND	-	.2V _{DD}	V
POWER FOR LCD	V _{DD} -V _L	T _A =25°C	-	9.0	-	V
POWER SUPPLY CURRENT	I _{DD}	V _{DD} =5.0V	-	3.0	4.5	mA
POWER SUPPLY CURRENT	I _L	V _L =9.0V	-	2.0	3.0	mA
LED FORWARD VOLTAGE	V _F	I _F =240mA	-	4.2	4.6	V
LED FORWARD CURRENT	I _F	V _F =4.2V	-	240	-	mA
BRIGHTNESS	L	-	-	200	-	cd/m ²
DRIVE METHOD	1/32 DUTY					

Power Supply



Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V _{DD} -V _{SS}	-0.3	7.0	V
LCD SUPPLY VOLTAGE	V _L	-0.3	18.0	V
OPERATING TEMPERATURE	T _{OP}	0	50	°C
STORAGE TEMPERATURE	T _{SIG}	-20	70	°C

Pin Connections

PIN NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	0V	Ground
2	V _{DD}	5V	Power supply for logic
3	V _L	-	Power supply for LCD
4	E	H,H→L	Enable signal
5	RS	H/L	Register Select
6	R/W	H/L	H=Read/L=Write
7	RST	H/L	Reset Signal
8	CSB	H/L	Chip Select
9	DB0	H/L	Data bus
10	DB1	H/L	
11	DB2	H/L	
12	DB3	H/L	
13	DB4	H/L	
14	DB5	H/L	
15	DB6	H/L	
16	DB7	H/L	
17	A	-	Anode for LED Backlight
18	K	-	Cathode for LED Backlight