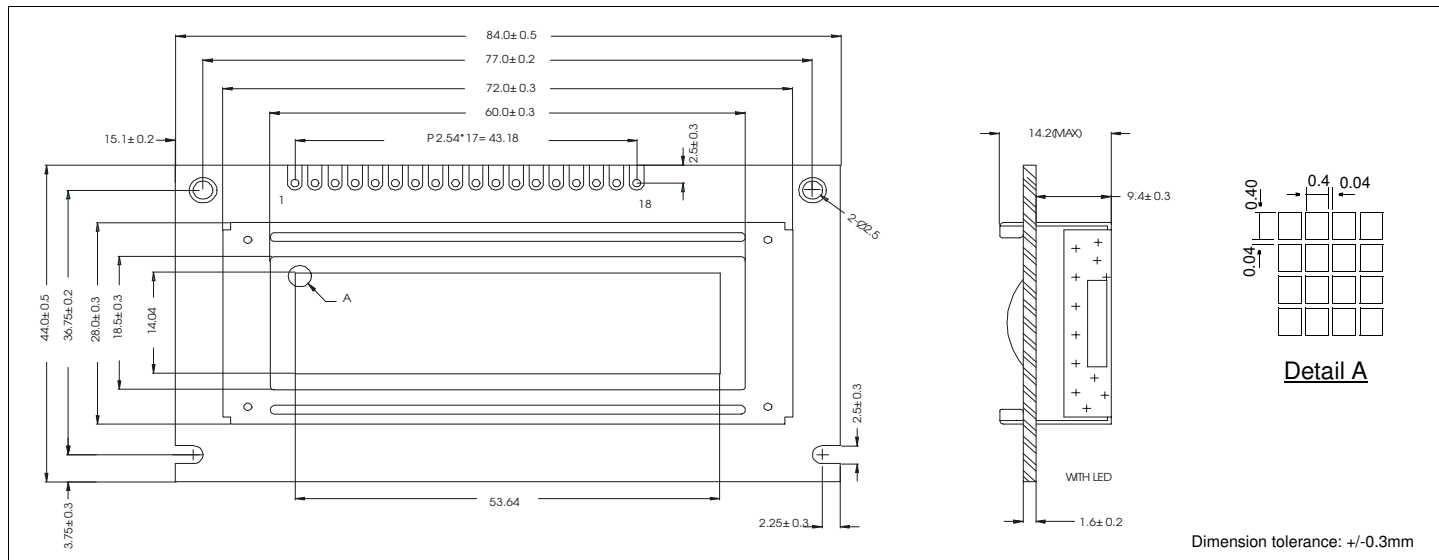


HDM32GS12_-B

Dimensional Drawing

122 X 32 Dots Graphic



Features

Backlight.....LED or None
 Options.....Yellow STN / Gray STN , FSTN
 Normal / Extended Temperature
 Top / Bottom Viewing
 Built-in Controller.....SED1520D0A

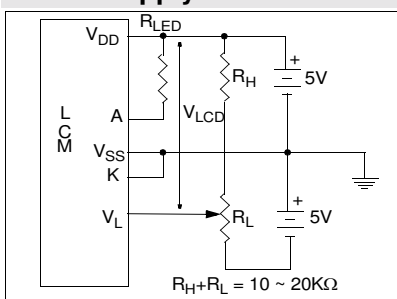
Physical Data

Module Size.....84.0W x 44.0H x 14.2T mm
 Viewing Area Size.....60.0W x 18.5H mm
 Dot Pitch.....0.44W x 0.44H mm
 Dot Size.....0.40W x 0.40H mm
 Weight.....28g

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}	-	V _{SS}	-	.2V _{DD}	V
POWER SUPPLY CURRENT	I _{DD}	V _{DD} = 5.0V	-	0.5	1.0	mA
LCD POWER SUPPLY	V _{DD} -V _L	T _A = 25°C	-	4.8	-	V
LCD POWER CURRENT	I _L	T _A = 25°C	-	1.0	1.5	mA
LED FORWARD VOLTAGE	V _F	I _F = 90mA	3.95	4.1	4.25	V
LED FORWARD CURRENT	I _F	V _F = 4.2V	-	90	-	mA
DRIVE METHOD	1/32 DUTY					

Power Supply



Pin Connections

PIN NO.	SYMBOL		FUNCTION
1	V _{SS}	0V	Ground
2	V _{DD}	5V	Power supply for logic
3	V _L	-	Operating voltage for LC
4	A ₀	H/L	L= Instruction, H= Data
5	E1	L	Chip select
6	E2	L	Chip select
7	WR (R/W)	-	WR (80 series), R/W (68 series)
8	DB0	H/L	Data bus
9	DB1	H/L	
10	DB2	H/L	
11	DB3	H/L	
12	DB4	H/L	
13	DB5	H/L	
14	DB6	H/L	L= 80 series, H= 68 series
15	DB7	H/L	
16	RES	H/L	
17	A	-	
18	K	-	Power supply for LED backlight

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V _{DD} -V _{SS}	-0.3	7.0	V
LCD SUPPLY VOLTAGE	V _{DD} -V _L	V _{DD} -13.5	V _{DD} +0.3	V
INPUT VOLTAGE	V _{IN}	-	V _{DD} +0.3	V
OPERATING TEMPERATURE	T _{OP}	0	50	°C
STORAGE TEMPERATURE	T _{STG}	-20	70	°C