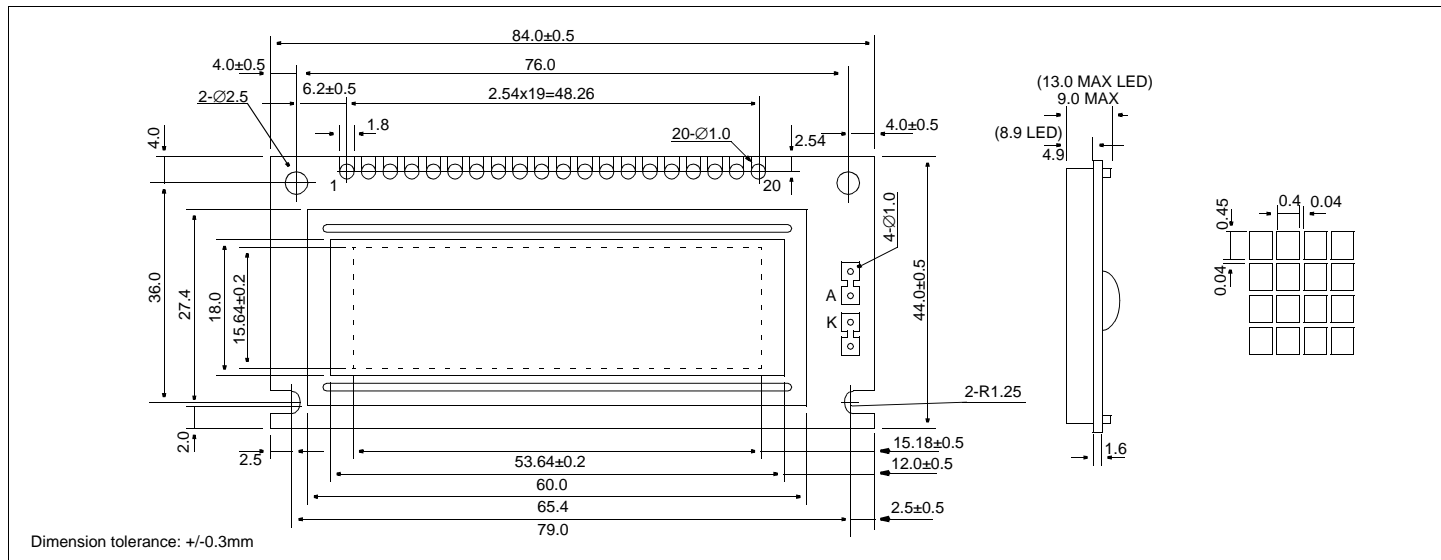


HDM32GS12_-B

Dimensional Drawing

122 X 32 Dots Graphic



Features

- Backlight.....LED or EL Optional
- Options.....Gray STN / Yellow STN
- Normal/Extended Temperature
- Bottom / Top Viewing
- Built-in Controller.....SED1520DAA

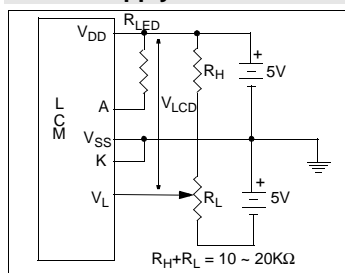
Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	$V_{DD}-V_{SS}$	0	6.5	V
INPUT VOLTAGE	V_{IN}	-	6.5	V
OPERATING TEMPERATURE	T_{OP}	0	50	°C
STORAGE TEMPERATURE	T_{STG}	-20	70	°C

Physical Data

- Module Size.....84.0W x 44.0H x 13.0T mm
- Viewing Area Size.....60.0W x 18.0H mm
- Dot Pitch.....0.44W x 0.49H mm
- Dot Size.....0.40W x 0.45H mm
- Weight.....28g

Power Supply



Pin Connections

PIN NO.	SYMBOL	FUNCTION
1	A_0	H/L L=Instruction, H=Data
2	CS2	Chip select
3	CS1	Chip select
4	CL	External clock (2kHz)
5	RD (E)	RD (80 series), E (68 series)
6	WR (R/W)	WR (80 series), R/W (68 series)
7	V_{SS}	0V Ground
8	DB0	Data bus
9	DB1	
10	DB2	
11	DB3	
12	DB4	
13	DB5	
14	DB6	
15	DB7	
16	V_{DD}	5V Power supply for logic
17	RES	L=80 series, H=68 series
18	V_L	Operating voltage for LC
19	A	
20	K	Power supply for LED backlight

Electrical Characteristics ($V_{DD}=5.0\pm 0.25V$ 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT HIGH VOLTAGE	V_{IH}	-	0.8 V_{DD}	-	-	V
INPUT LOW VOLTAGE	V_{IL}	-	-	-	0.2 V_{DD}	V
POWER SUPPLY CURRENT	I_{DD}	$V_{DD}=5.0V$	-	-	2.8	mA
POWER SUPPLY FOR LCD	$V_{DD}-V_L$	$T_A=25^\circ C$	3.9	4.9	6.0	V
LED CURRENT	I_{LED}	$V_{LED}=4.2V$	-	145	-	mA
DRIVE METHOD	1/32 DUTY					