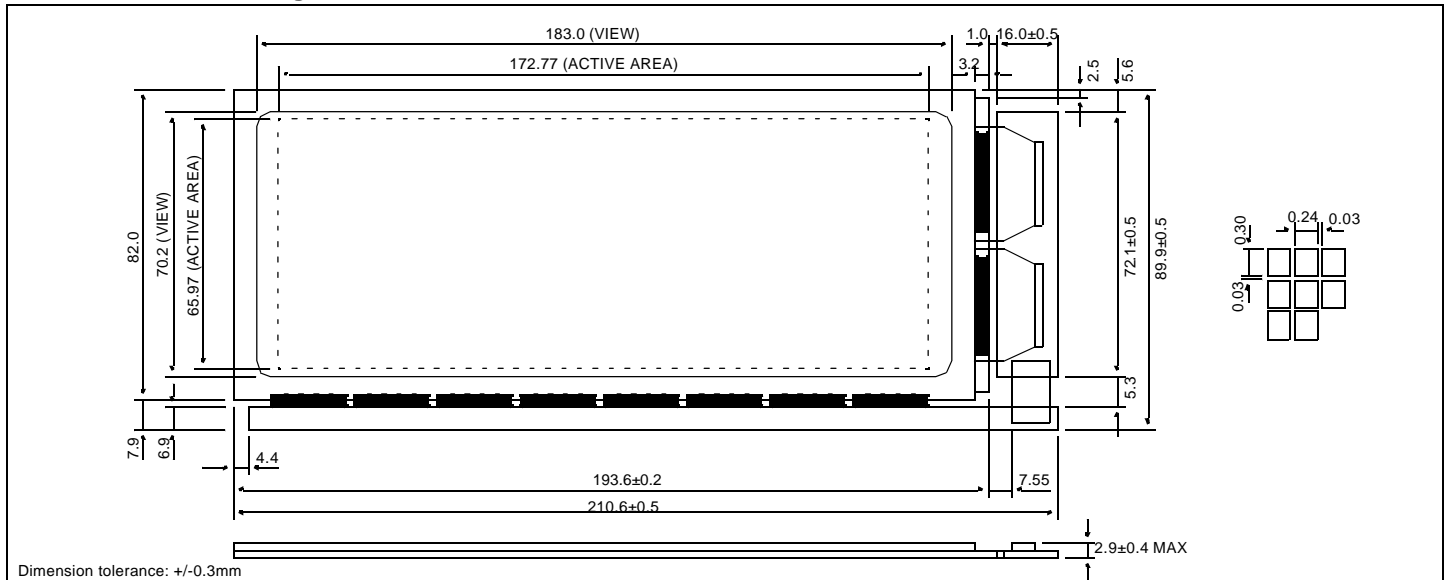


HDM 64GS20

Dimensional Drawing

640 X 200 Dots Graphic, Very Thin



Features

Backlight.....None
 Options.....FSTN
 Normal Temperature
 Bottom Viewing
 Built-in Controller.....None

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	$V_{DD}-V_{SS}$	-0.3	6.5	V
INPUT VOLTAGE	$V_{DD}-V_5$	0	27.0	V
OPERATING TEMPERATURE	T_{OP}	0	50	°C
STORAGE TEMPERATURE	T_{STG}	-20	70	°C

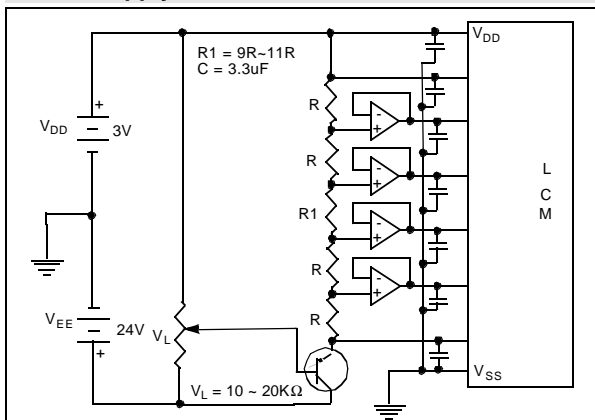
Physical Data

Module Size.....210.6W x 89.9H x 2.9T mm
 Viewing Area Size.....183.0W x 70.2H mm
 Dot Pitch.....0.27W x 0.33H mm
 Dot Size.....0.24W x 0.30H mm
 Weight.....102g

Electrical Characteristics (VDD=3.0±0.25V 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
OPERATING VOLTAGE	V_{DD}	-	2.7	3.0	5.25	V
POWER SUPPLY FOR LCD	$V_{DD}-V_5$	-	21.3	21.7	22.1	V
INPUT HIGH VOLTAGE	V_{IH}	-	$0.8V_{DD}$	-	V_{DD}	V
INPUT LOW VOLTAGE	V_{IL}	-	GND	-	$0.2V_{DD}$	V
POWER SUPPLY CURRENT	I_{DD}	$V_{DD} = 5.0V$	-	9.6	-	mA
POWER SUPPLY CURRENT	I_{LCD}	$V_{DD} = 5.0V$	-	7.0	-	mA

Power Supply



Pin Connections

PIN NO.	SYMBOL	FUNCTION
1	V_{DD}	5V Power supply for logic
2	V_{SS}	0V Ground
3	FLM	H First line marker
4	CL1	H,H→L Display data latch clock
5	CL2	H,H→L Display data shift clock
6	M	H/L AC driving control signal
8	DB1	H/L Data bus
9	DB2	H/L
10	DB3	H/L
11	V0	LCD Power supply (COM, SEG selected level)
12	V1	LCD Power supply (COM non-selected level)
13	V2	LCD Power supply (SEG non-selected level)
14	V3	LCD Power supply (SEG non-selected level)
15	V4	LCD Power supply (COM non-selected level)
16	V5	LCD Power supply (COM, SEG selected level)