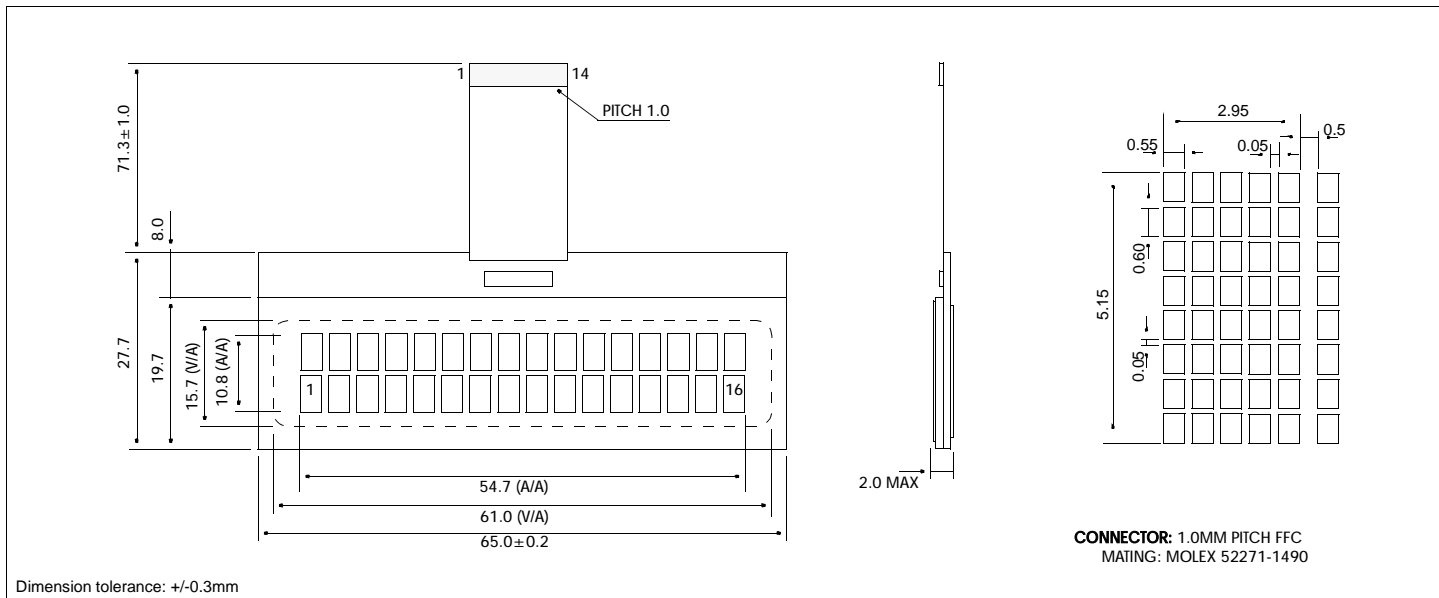


HDG1602F

Chip On Glass technology

Dimensional Drawing

16 Character x 2 Line



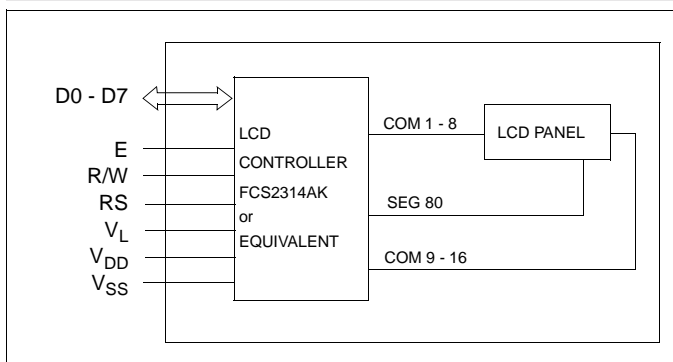
Features

Character Format5x7 Dots with Cursor
 ConnectionFlat Flex Cable
 Options.....STN, Reflective Polarizer
 Characters.....240 in ROM, 8 user designed in RAM

Physical Data

Module Size.....65.0W x 27.7H x 2.0T mm
 Viewing Area Size.....61.0W x 15.7H mm
 Character Size.....2.95W x 5.15H mm
 Weight.....7.0 g

Block Diagram



Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	$V_{DD}-V_{SS}$	-0.3	6.0	V
SUPPLY VOLTAGE FOR LCD	$V_{DD}-V_L$	0	11.0	V
INPUT VOLTAGE	V_{IN}	V_{SS}	V_{DD}	V
OPERATING TEMPERATURE	T_{OP}	0	50	°C
STORAGE TEMPERATURE	T_{STG}	-20	70	°C

Pin Connections

PIN NO.	SYMBOL	LEVEL	FUNCTION
1	RS	H/L	H: Data input L: Instruction data input
2	R/W	H/L	H: Data read L: Data write
3	E	H,H→L	Enable signal
4	D0	H/L	Data bus
5	D1	H/L	
6	D2	H/L	
7	D3	H/L	
8	D4	H/L	
9	D5	H/L	
10	D6	H/L	
11	D7	H/L	Power supply
12	V_{SS}	0V	
13	V_{DD}	5V	Contrast control
14	V_L	~ +0.6V	

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

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT HIGH VOLTAGE	V_{IH}	-	0.7 V_{DD}	-	V_{DD}	V
INPUT LOW VOLTAGE	V_{IL}	-	V_{SS}	-	0.2 V_{DD}	V
OUTPUT HIGH VOLTAGE	V_{OH}	$I_{OH}=0.2mA$	0.8 V_{DD}	-	V_{DD}	V
OUTPUT LOW VOLTAGE	V_{OL}	$I_{OL}=1.2mA$	V_{SS}	-	0.2 V_{DD}	V
POWER SUPPLY CURRENT	I_{DD}	$V_{DD}=5V$	-	0.82	1.4	mA
POWER SUPPLY FOR LCD	$V_{DD}-V_L$	$T_A=25°C$	4.1	4.5	4.9	V
DRIVE METHOD			1/16 Duty			