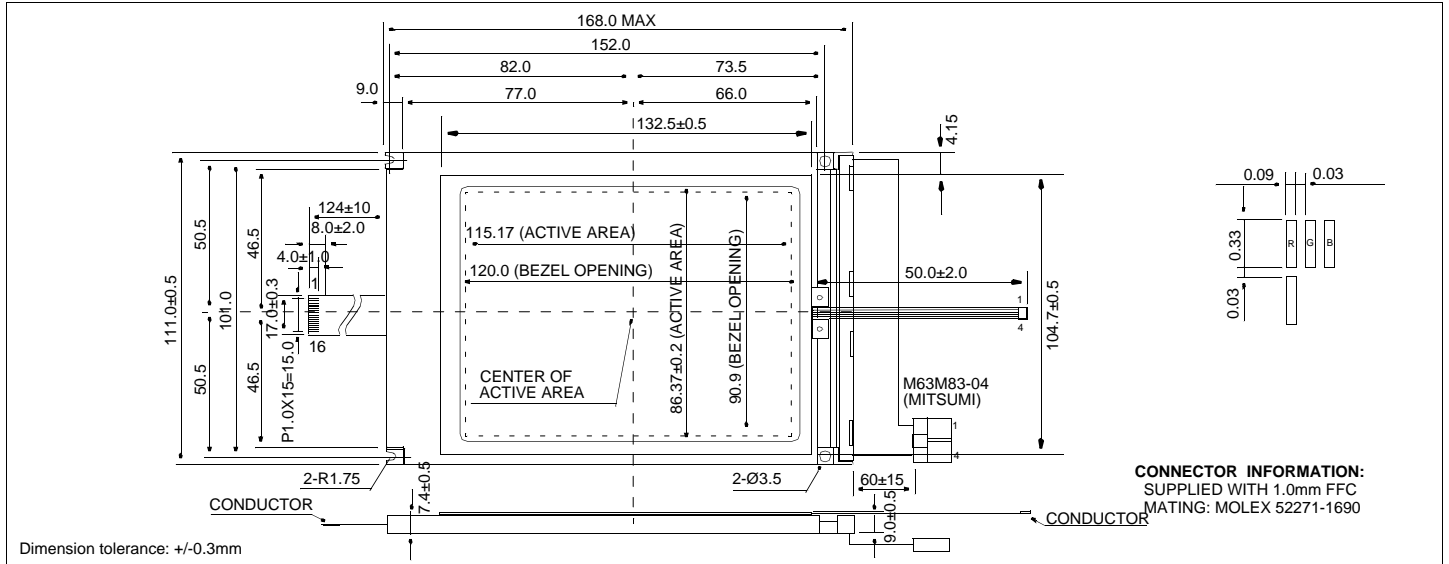


# HDM 3224ATS-C

## Dimensional Drawing

320 X 240 Dots Color Graphic Touch Screen CCFL Backlight



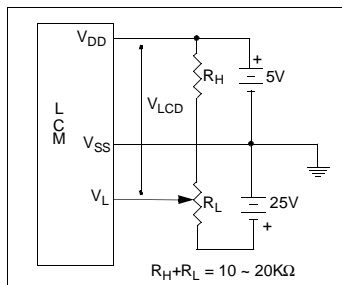
### Features

- Backlight.....CCFL
- Options.....Color RGB  
Normal/Extended Temperature  
Bottom Viewing
- Built-in Controller.....None

### Physical Data

- Module Size.....168.0W x 111.0H x 9.0T mm
- Viewing Area Size.....120.0W x 90.0H mm
- Dot Pitch.....0.36W x 0.36H mm
- Dot Size.....0.09W x 0.33H mm
- Weight.....280g

### Power Supply



### Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V <sub>DD</sub> -V <sub>SS</sub>	-0.3	7.0	V
SUPPLY VOLTAGE FOR LCD	V <sub>EE</sub>	0	42.0	V
INPUT VOLTAGE	V <sub>IN</sub>	-0.3	7.0	V
OPERATING TEMPERATURE	T <sub>OP</sub>	0	50	°C
STORAGE TEMPERATURE	T <sub>STG</sub>	-20	70	°C

### Pin Connections

PIN NO.	SYMBOL	LEVEL	FUNCTION
<b>DATA CONNECTOR</b>			
1	FRAME	H	First Line Marker
2	LOAD	H/L	Data Latch
3	CP	H/L	Data shift
4	DISPOFF	H/L	H= On, L= Off
5	V <sub>DD</sub>	5V	Power supply for logic
6	V <sub>SS</sub>	0V	Ground
7	V <sub>L</sub>	-	Operating voltage for LC
8	D0	H/L	Data bus
9	D1	H/L	
10	D2	H/L	
11	D3	H/L	
12	D4	H/L	
13	D5	H/L	
14	D6	H/L	
15	D7	H/L	
16	V <sub>SS</sub>	0V	
<b>CCFL CONNECTOR</b>			
1	V <sub>CFL</sub>	-	Power supply for CCFL
2	NC	-	No Connection
3	NC	-	No Connection
4	V <sub>CFL</sub>	-	CCFL Ground
<b>TOUCH SCREEN CONNECTOR</b>			
1	UP	-	
2	RIGHT	-	
3	DOWN	-	
4	LEFT	-	

### Electrical Characteristics (V<sub>DD</sub>=5.0±0.25V 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT HIGH VOLTAGE	V <sub>IH</sub>	-	0.8 V <sub>DD</sub>	-	V <sub>DD</sub>	V
INPUT LOW VOLTAGE	V <sub>IL</sub>	-	0	-	0.2 V <sub>DD</sub>	V
SUPPLY VOLTAGE	V <sub>DD</sub>	-	4.5	5.0	5.5	V
	V <sub>L</sub>	-	23.3	23.5	23.6	V
DRIVE METHOD	1/240 DUTY					