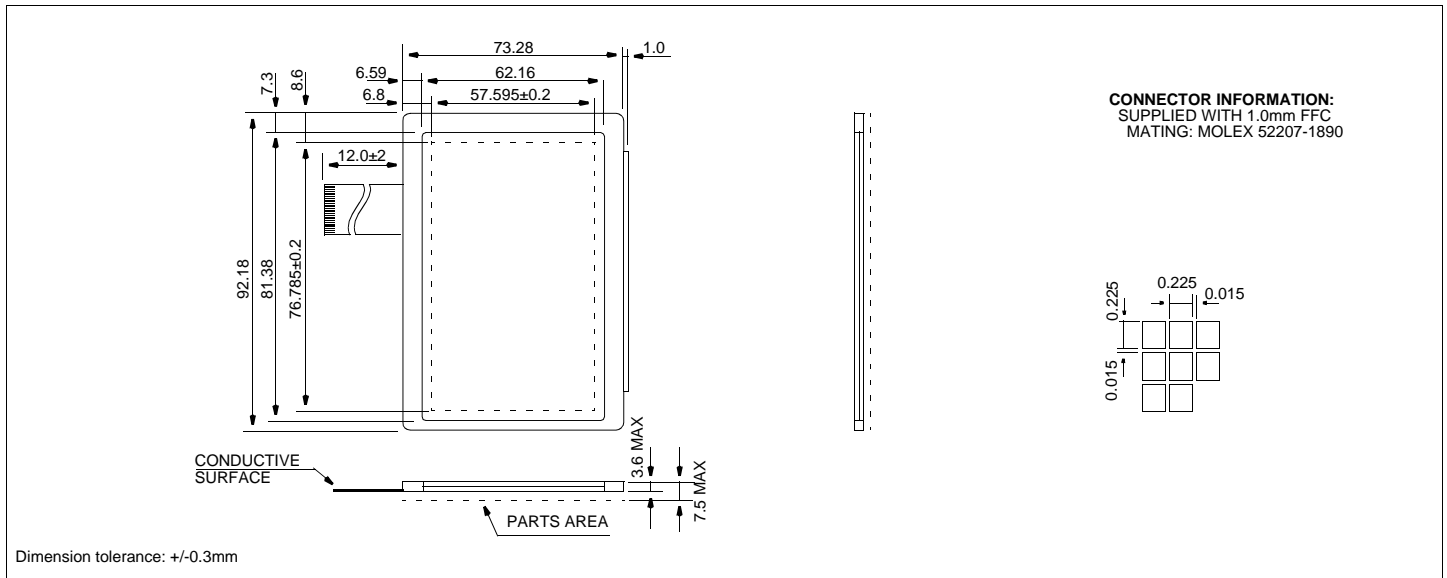


# HDM2432TS-T

## Dimensional Drawing

240 X 320 Dots Graphic (Portrait Mode) w/ Touch Screen



### Features

Backlight.....EL  
 Options.....Black and White FSTN  
 Extended Temperature  
 Bottom Viewing

Built-in Controller.....None

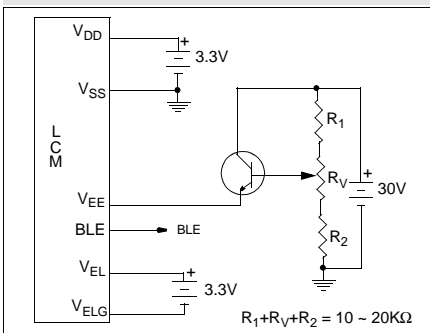
### Physical Data

Module Size.....73.28W x 92.18H x 7.5T mm  
 Viewing Area Size.....62.16W x 81.38H mm  
 Dot Pitch.....0.24W x 0.24H mm  
 Dot Size.....0.225W x 0.225H mm  
 Weight.....52g

### Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	$V_{DD}-V_{SS}$	0	7.0	V
SUPPLY VOLTAGE FOR LCD	$V_{DD}-V_{EE}$	0	30.0	V
INPUT VOLTAGE	$V_{IN}$	-	7.0	V
OPERATING TEMPERATURE	$T_{OP}$	-20	70	°C
STORAGE TEMPERATURE	$T_{STG}$	-30	80	°C

### Power Supply



### Electrical Characteristics (VDD=3.3±0.25V 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT HIGH VOLTAGE	$V_{IH}$	-	0.7 $V_{DD}$	-	-	V
INPUT LOW VOLTAGE	$V_{IL}$	-	-	-	0.3 $V_{DD}$	V
OUTPUT HIGH VOLTAGE	$V_{OH}$	$I_{OH}=0.4mA$	$V_{DD}-0.4$	-	-	V
OUTPUT LOW VOLTAGE	$V_{OL}$	$I_{OL}=0.4mA$	-	-	0.4	V
SUPPLY VOLTAGE	$V_{DD}$	-	3.0	3.3	3.6	V
	$-V_{EE}$	-	24.2	22.7	20.3	V
DRIVE METHOD	1/240 DUTY					

### Pin Connections

PIN NO.	SYMBOL	LEVEL	FUNCTION
<b>DATA</b>			
1	CL2	H/L	Data shift clock
2	CL1	H/L	Data Latch clock
3	FLM	H/L	First Line Marker
4	M	H/L	AC signal
5	D0	H/L	Display data
6	D1	H/L	
7	D2	H/L	
8	D3	H/L	
9	$V_{EE}$	-	Power supply for LCD
10	$V_{DD}$	3.3V	Power supply for logic
11	$V_{SS}$	0V	Ground
12	BLE	H/L	H = Enable EL, L = Dissable EL
13	$V_{ELG}$	-	Power supply for EL
14	$V_{EL}$	-	
<b>TOUCH PANEL</b>			
15	$X_p$	-	Touch panel connections
16	$Y_M$	-	
17	$X_M$	-	
18	$Y_p$	-	