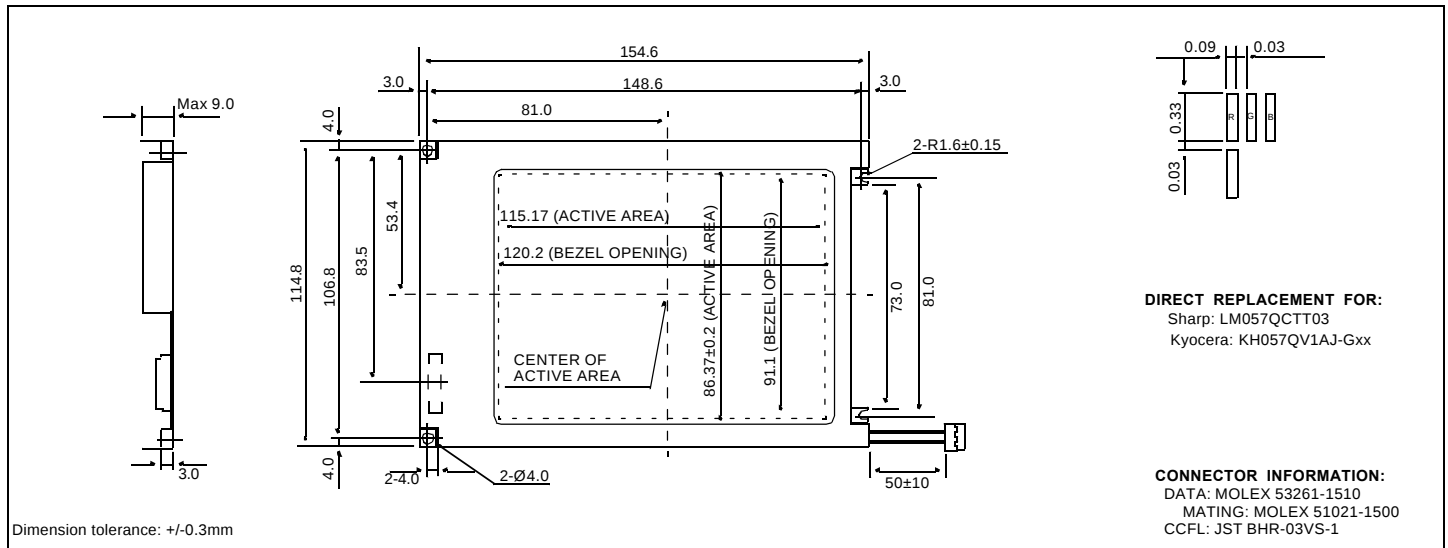


HDM 3224-CL

Dimensional Drawing

320 X 240 Dots Color Graphic "L" Shaped CCFL Backlight



Features

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

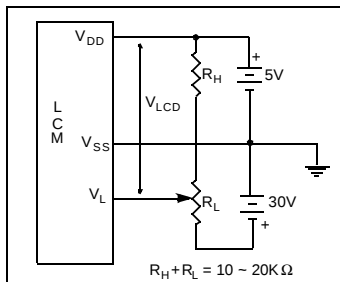
Physical Data

Module Size.....154.6W x 114.8H x 15.0T mm
Viewing Area Size.....120.2W x 91.1H mm
Dot Pitch.....0.36W x 0.36H mm
Dot Size.....0.09W x 0.33H mm
Weight.....210g

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	$V_{DD}-V_{SS}$	-0.3	6.5	V
SUPPLY VOLTAGE FOR LCD	V_{EE}	0	42.0	V
INPUT VOLTAGE	V_{IN}	-0.3	7.0	V
OPERATING TEMPERATURE	T_{OP}	0	50	$^{\circ}$ C
STORAGE TEMPERATURE	T_{STG}	-20	70	$^{\circ}$ C

Power Supply



Electrical Characteristics (VDD=5.0 $\pm$ 0.25V 25 $^{\circ}$ C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT HIGH VOLTAGE	V _{IH}	-	0.8 V _{DD}	-	V _{DD}	V
INPUT LOW VOLTAGE	V _{IL}	-	0	-	0.2 V _{DD}	V
SUPPLY VOLTAGE	V _{DD}	-	4.5	5.0	5.5	V
	V _L	-	25.5	25.8	26.1	V
SUPPLY CURRENT	I _{DD}	V _{DD} =5.0V	-	6.8	13.0	mA
	I _{EE}		-	11.5	15.0	mA
BRIGHTNESS	L		165			NIT
DRIVE METHOD	1/240 DUTY					

Pin Connections

PIN NO.	SYMBOL	LEVEL	FUNCTION
DATA CONNECTOR			
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 _{DD}	5V	Power supply for logic
6	V _{SS}	0V	Ground
7	V _L	-	Operating voltage for LC
8	D7	H/L	Data bus
9	D6	H/L	
10	D5	H/L	
11	D4	H/L	
12	D3	H/L	
13	D2	H/L	
14	D1	H/L	
15	D0	H/L	
CCFL CONNECTOR			
1	V _{CFL}	-	Power supply for CCFL
2	NC	-	No Connection
3	V _{CFL}	-	CCFL Ground