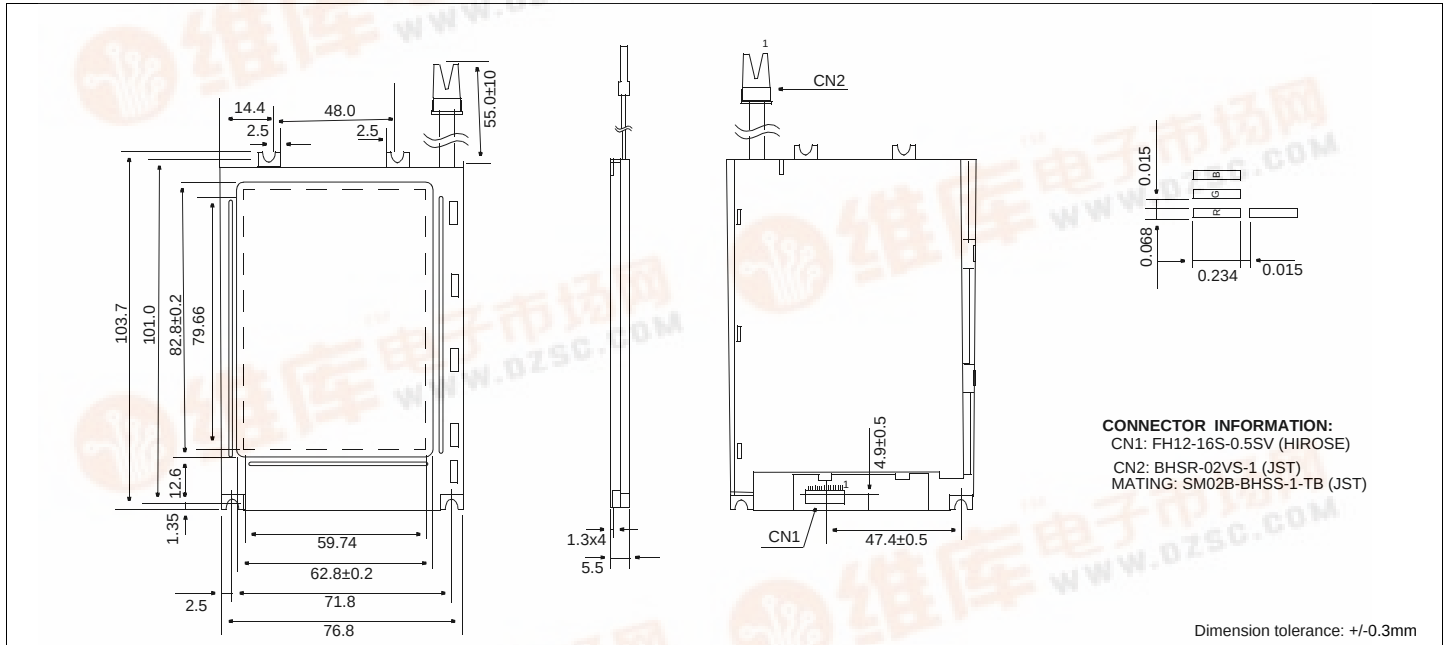


HDM 3224CL-S

Dimensional Drawing

3.9" 320 X 240 Color Graphic, Super Low Power, Thin w/LED Backlight



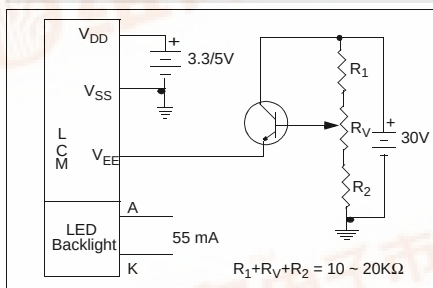
Features

Backlight..... White LED
 Options..... ColorRGB
 Bottom / Top Viewing
 Portrait / Landscape
 Touch Screen
 Built-in Controller..... None

Physical Data

Module Size..... 76.8W x 103.7H x 5.5T mm
 Viewing Area Size..... 62.8W x 82.8H mm
 Dot Pitch..... 0.249W x 0.083H mm
 Dot Size..... 0.234W x 0.068H mm
 Weight..... 66.7g

Power Supply



Electrical Characteristics (Ta = 25°C)

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
SUPPLY VOLTAGE	V _{DD}	-	3.0	3.3	3.6	V
	V _L	-	4.5	5.0	5.5	V
INPUT HIGH VOLTAGE	V _{IH}	-	0.8 V _{DD}	-	V _{DD}	V
INPUT LOW VOLTAGE	V _{IL}	-	0	-	0.2 V _{DD}	V
LED Forward Volt-age	V _F	I _F = 55 mA	-	7.2	-	V
LED Forward Current	I _F	V _F = 7.0 V	-	55	83	mA
LED Power	P _F	-	-	0.4	-	V
DRIVE METHOD	1/240 DUTY					

Pin Connections

PIN NO.	SYMBOL	LEVEL	FUNCTION
DATA CONNECTOR			
1	D7	H/L	Data Bus
2	D6	H/L	
3	D5	H/L	
4	D4	H/L	
5	D3	H/L	
6	D2	H/L	
7	D1	H/L	
8	D0	H/L	
9	V _{SS}	0V	Ground
10	V _{DD}	3.3V	Power supply for logic
11	DISPOFF	H/L	H = On, L = Off
12	CP	H/L	Data shift
13	LOAD	H/L	Data Latch
14	FRAME	H	First Line Marker
15	V _{SS}	0V	Ground
16	V _{EE}	-	Operating voltage for LC
BACKLIGHT CONNECTOR			
1	A	-	Power supply for LED
2	K	-	Ground

Absolute Maximum Ratings

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	V _{DD} -V _{SS}	-0.3	7.0	V
SUPPLY VOLTAGE FOR LCD	V _{EE}	0	30.0	V
INPUT VOLTAGE	V _{IN}	-0.3	V _{DD} + 0.3	V
OPERATING TEMPERATURE	T _{OP}	0	50	°C
STORAGE TEMPERATURE	T _{STG}	-20	70	°C