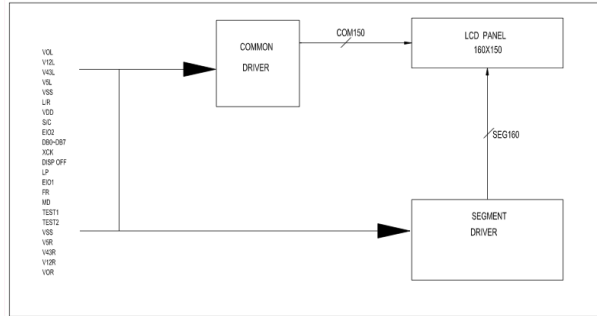


PRODUCT PREVIEW

160 x 150 Monochrome

2.0 BLOCK DIAGRAM



3.0 ELECTRICAL CHARACTERISTICS Ta=25 °C VDD=3.0V±0.25V

Item	Symbol	Test Condition	Standard Value		
			Min.	Typ.	Max.
Power Supply Voltage	V _{DD} -V _{SS}	25°C	2.7	3.0	4.5
LCD Operation Voltage	V _{OP}		21.2		
LCM Current Consumption	I _{OP}		2	3	

4.0 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Test Condition	Standard Value		
			Min.	Max.	Unit
Supply Voltage (Logic)	V _{DD} -V _{SS}	25°C	-0.3	7.0	V
Supply Voltage (LCD)	V _{OP} -V _O		-0.3	30	V
Input Voltage	V _{IN}		-0.3	V _{DD} +0.3	V
Operating Temp.	T _{OPR}		-20	70	°C
Storage Temp.	T _{STG}		-30	80	°C

5.0 PIN ASSIGNMENT

PIN No.	Symbol	Description
1	NC	No Connection
2	VOL	Power supply for LCD driver
3	V12L	Power supply for LCD driver
4	V3L	Power supply for LCD driver
5	V4L	Power supply for LCD driver
6	VSS	Ground
7	L/R	Display data shift direction selection
8	VDD	Power supply for the logic system
9	S/C	Segment mode / common mode selection
10	EIO2	Input / output for chip select or data of shift register
11-18	DO-D7	Data bus
19	XCK	Display data shift clock input for segment mode
20	/DISP OFF	Control input for deselect output level
21	LP	Latch pulse input/shift clock input for the shift register
22	EIO1	Input / output for chip select or data of the shift register
23	FR	AC-converting signal input for LCD driver waveform
24	MD	Mode selection input
25	TEST1	Test pin, no connection for user
26	TEST2	Test pin, no connection for user
27	VSS	Ground
28	VSR	Power supply for LCD driver
29	V3R	Power supply for LCD driver
30	V12R	Power supply for LCD driver
31	VOR	Power supply for LCD driver
32	NC	No Connect

Remark
1. LCD option: STN, FSTN.
2. Customized module.

