

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	$V_{DD} - V_{SS}$	-0.3	5.5	V
Supply Voltage(LCD)	$V_{DD} - V_{EE}$	-0.3	25.0	V
Input Voltage	V_i	-0.3	$V_{DD} + 0.3$	V
Operating Temp.	T_{opr}	-20	70	°C
Storage Temp.	T_{stg}	-30	80	°C

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	129.0 x102.0 x13.0	mm
Viewing Area (W x H)	101.0 x82.0	mm
Dot Pitch (W x H)	0.58 x 0.58	mm
Dot Size(W x H)	0.54 x 0.54	mm
Weight	Approx. 175	g

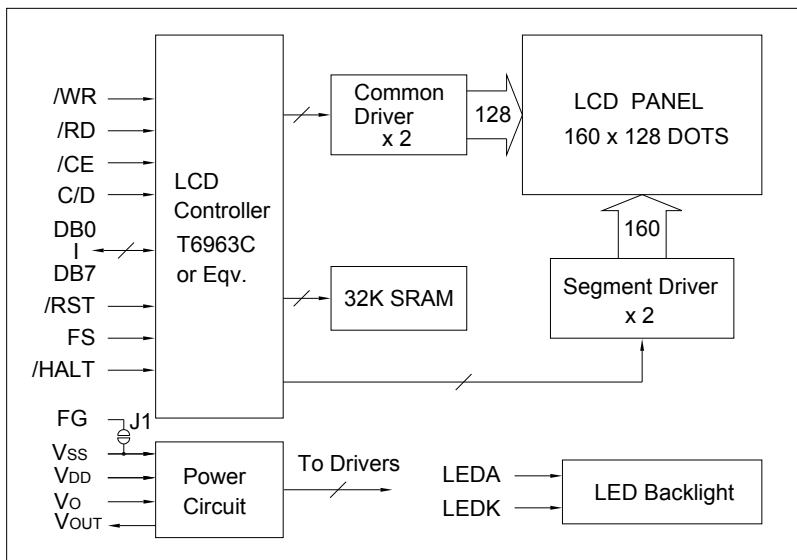
ELECTRICAL CHARACTERISTICS ($V_{DD}=5V$)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V_{IH}	--	$V_{DD}-2.2$	--	V_{DD}	V
Input Low Voltage	V_{IL}	--	-0.3	--	0.8	V
Output High Voltage	V_{OH}	--	$V_{DD}-0.3$	--	V_{DD}	V
Output Low Voltage	V_{OL}	--	0	--	0.3	V
Supply Current	I_{DD}	$V_{DD} = 5.0V$	--	16.0	22.0	mA
LCD Driving Voltage	$V_{DD} - V_o$	$T_a=25^\circ C$	--	18.2	--	V

PIN CONNECTIONS

Pin	Symbol	Level	Function
1	FG	--	Frame ground
2	V_{SS}	0V	GND
3	V_{DD}	5V	Power supply for logic
4	V_o	--	Operating Voltage for LCD
5	V_{OUT}	-14V	Output voltage for LCD driving
6	/WR	L	Write signal. Active "L".
7	/RD	L	Read signal. Active "L".
8	/CE	L	Chip enable signal. Active "L".
9	C/ \bar{D}	H/L	L : Data H : Instruction Code
10	/HALT	H/L	H : Normal L : Stops osc. clock
11	/RST	L	Reset signal. Active "L".
12	DB0	H/L	Data bus
13	DB1	H/L	
14	DB2	H/L	
15	DB3	H/L	
16	DB4	H/L	
17	DB5	H/L	
18	DB6	H/L	
19	DB7	H/L	
20	FS	H/L	Font selection L: 8x8, H: 6x8

BLOCK DIAGRAM



LED BACKLIGHT SPECIFICATIONS ($T_a=25^\circ C$)

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	V_f	3.1	3.3	V
Forward Current	I_f	105	--	mA
LED Color		White		