



GM246422

240 x 64 dots

STN

Reflective / EL Backlight

DIMENSIONAL DATA

Item	Measurement (W) x (H) x (T)	Unit
Module Dimension	128.6 x 69.6 x 9.9 Max. (Reflective)	mm
Viewing Area	112.0 x 32.0	mm
Dot Pitch	0.45 x 0.45	mm
Dot Size	0.41 x 0.41	mm
Weight	90	g
Controller/Driver	T6963C	

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Condition	Min.	Max.	Unit
Supply Voltage (Logic)	$V_{DD} - V_{SS}$	0		7.0	V
Supply Voltage(LCD)	$V_{DD} - V_O$	0		20.0	V
Input Voltage	V_I	$T_a = 25\text{ C}$	V_{SS}	V_{DD}	V
Operating Temp.	T opr		0	50	C
Storage Temp.	T stg		-10	60	C

ELECTRICAL CHARACTERISTIC

Item	Symbol	Condition	Value			Unit
			Min.	Typ.	Max.	
Supply Voltage (Logic)	$V_{DD} - V_{SS}$	--	4.5	5.0	5.5	V
Supply Voltage (LCD)	$V_{DD} - V_O$	--	--	11.5	--	V
Supply Current	I_{DD}	$V_{DD} - V_{SS} = 5V$	--	29	--	mA
	I_{EE}		--	--	--	mA
Input Voltage "H" Level	V_{IH}	High Level	$V_{DD} \cdot 2.2$	--	V_{DD}	V
Input Voltage "L" Level	V_{IL}	Low Level	0	--	0.8	V
Frame Frequency	F_f	$T_a = 25\text{ C}$	--	70	--	Hz
Viewing Angle	1 - 2	$T_a = 25\text{ C}$	--	30	--	Deg.
	1. 2		CR 3	--	3 0	

PIN ASSIGNMENT

Pin	Symbol	Level	Function
1	V_{SS}	L	Ground (0V)
2	V_{DD}	H	+5V
3	V_O	--	Input Voltage for LCD Contrast
4	C/D	H/L	Command /Data Selection/Data
5	RD	H/L	Data Read
6	/WR	H/L	Data Write
7	DB0	H/L	Data Bus Line
8	DB1	H/L	
9	DB2	H/L	
10	DB3	H/L	
11	DB4	H/L	
12	DB5	H/L	
13	DB6	H/L	
14	DB7	H/L	
15	/CE	H/L	Chip Enable
16	/RES	--	IC Reset ,Active Low
17	V_{EE} OUT	--	Negative Voltage Output
18	MD2	--	H=64 ,L=80 Columns
19	FS1	H/L	Font Select, L=8 x 8, H=6 x 8
20	FG/NC	--	Frame Ground ,No Connection

OUTLINE DIMENSION

