

# DG series

## DG-24128-06 240 X 128 Dots

### Mechanical Data

Item	Standard Value	Unit
Module Size	144.0(W) x 104.0(H) x 10.0 (T)	mm
Viewing Area	114.0(W) x 64.0 (H)	mm
Dot Pixels	240 x 128	dots
Dot Size	0.40 x 0.40	mm
Dot Pitch	0.45 x 0.45	mm

### Absolute Maximum Ratings

Item	Symbol	Standard Value			Unit
		Min.	Typ.	Max.	
Supply Voltage for Logic	$V_{dd}-V_{ss}$	0	--	7.0	V
Supply Voltage for LCD Drive	$V_{dd}-V_{ee}$	0	--	20.0	V
Input Voltage	$V_i$	$V_{ss}$		$V_{DD}$	V
Operation Temperature	Topr	0		50	°C
Storage Temperature	Tstg	-20		70	°C

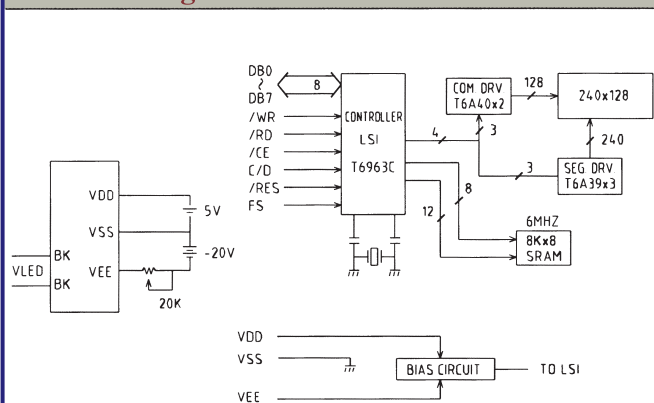
### Electrical Characteristics

Item	Symbol	Condition	Standard Value			Unit
			Min.	Typ.	Max.	
LCD Supply Voltage	$V_{dd}-V_{ss}$		4.75	5.0	5.25	V
LCD Driver Circuit Power Supply Voltage	$V_{dd} V_{ee}$	0 °C	15.3	16.1	16.9	V
		25 °C	14.3	15.0	15.8	
		50 °C	13.1	13.8	14.5	
Input Voltage	$V_{IH}$	$V_{DD} = 3 \pm 0.25$	$0.7 \times V_{DD}$	--	$V_{DD}$	V
Input Voltage	$V_{IL}$	$V_{DD} = 5 \pm 0.25$	0	--	$0.3 \times V_{DD}$	
Input leakage current	$I_U$					uA
Supply current for (Logic)	$I_{DD}$	$V_{DD} = 5V$	--	12	--	mA
Supply current for (LCD)	$I_{EE}$	$V_{EE} = 13.0V$	--	--	5.0	mA

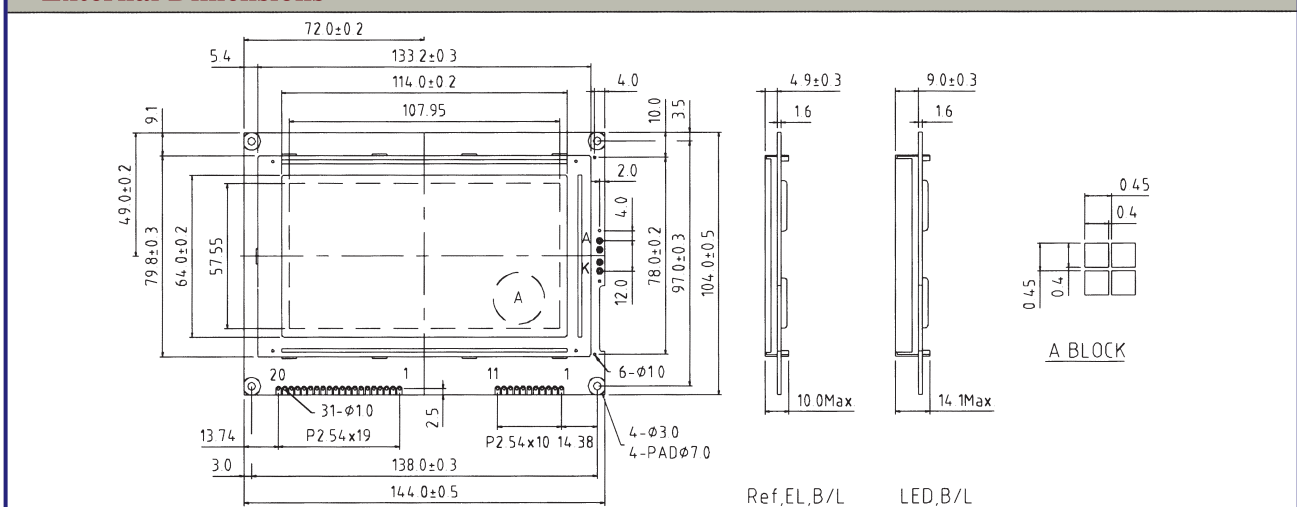
### Pin Assignment

No.	Symbol	Level	Function
1.	$V_{SS}$		Ground potential (Logic)
2.	$V_{DD}$		Power supply for Logic & LCD (+)
3.	$V_{EE}$		Power supply for LCD
4.	C/D		Code/Data
5.	/RD		Data Read
6.	/WR		Data Write
7-14	DB0-DB7		Data bus Line
15	/CE		Chip enable
16	/RES		Control reset
17	$V_{EE}$		Negative for selection of columns
18	MD2		H = 32 L = 40
19	FS		H = 6 x 8 L = 8 x 8
20	NC		No connection

### Block Diagram



### External Dimensions



### Option

LCD Type							Backlight Type			Built-in Control LSI		
S1	S2	W	N	R	F	M	H	EL	LED	CCFL	Touch Panel	
•		•		•	•		•	•	•			T6963C

Remarks: S1 : yellow-green STN LCD , S2 : gray STN LCD, W : black & white LCD, N : negative type LCD, R : reflective type LCD, F : transfective type LCD, M : transmissive type LCD, H : extended temperature type LCD (-20°C ~ 70°C)