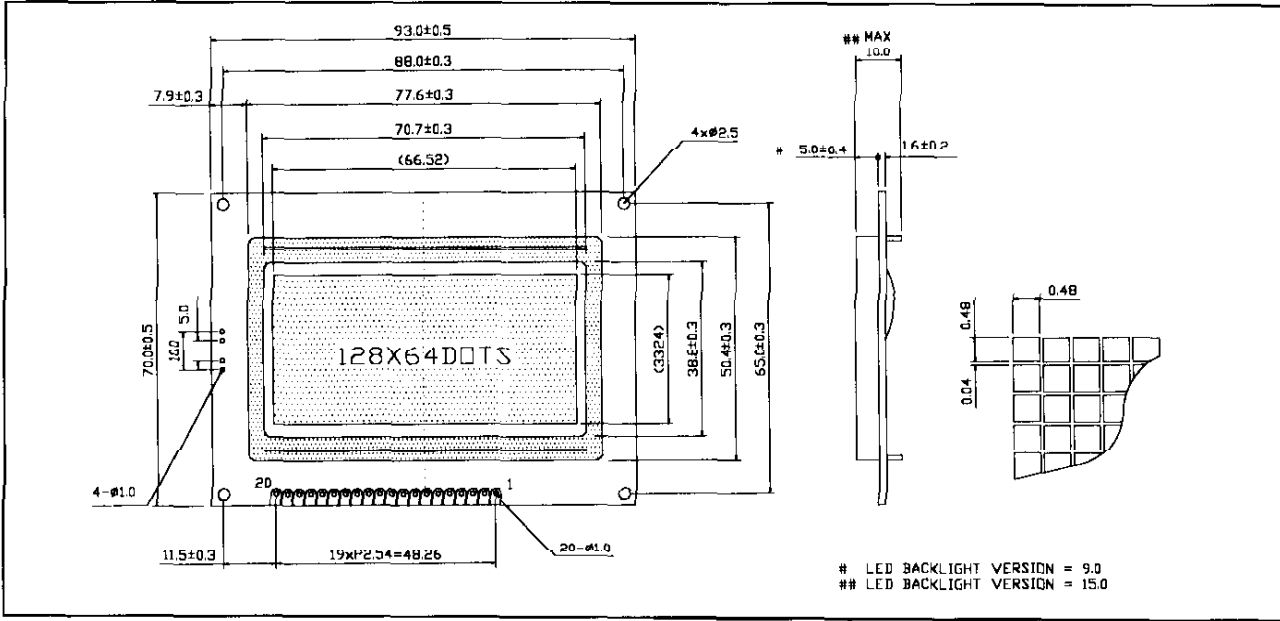


AG1286401

* EXTERNAL DIMENSIONS AND DISPLAY PATTERNS



MECHANICAL DATA (Nominal dimensions)

Module size	93W x 70H x 10T (max.)mm
Effective display area	70.7W x 38.8H mm
Dot size	0.48W x 0.48H mm
Dot pitch	0.52W x 0.52H mm
Weight	about 70g (Approx.)

ABSOLUTE MAXIMUM RATINGS

	MIN.	MAX.
Power supply for logic (V _{DD})	-0.3	7.0 V
Power supply for LCD drive (V _{DD} - V ₀)	V _{DD} - 0.3	V _{DD} - 0.3 V
Input voltage (V _i)	-0.3	V _{DD} - 0.3 V
Operating temperature (T _a)	0	+50°C
Storage temperature (T _{stg})	-20	+70°C

ELECTRICAL CHARACTERISTICS

T_a=25°C, V_{DD}=5.0V±0.25V

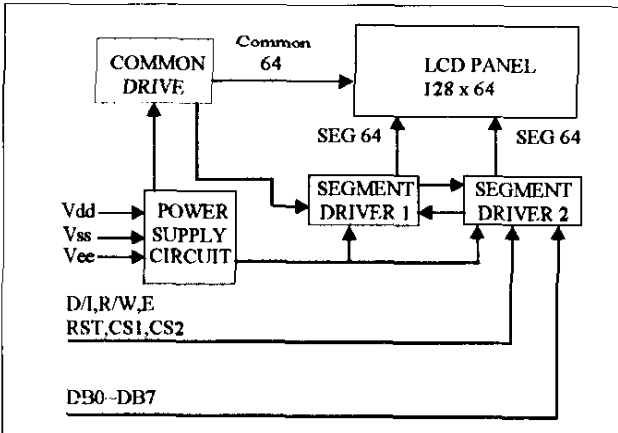
Input "high" voltage (V _{ih})	0.7V _{DD} V min.
Input "low" voltage (V _{il})	0.3V _{DD} V max.
Output "high" voltage (V _{oh}) (I _{oH} =0.2mA)	2.4V min.
Output "low" voltage (V _{ol}) (I _{oL} =1.6mA)	0.4V max.
Power supply current (I _{dd}) (V _{DD} =5.0v)	1.0mA typ. (V _{DD} =5V, V _{EE} =-10V)

Drive method

Power supply LCD drive (V_{DD} - V₀)

T_a=25°C 15.0V typ.

* BLOCK DIAGRAM



* PIN Assignment

Pin No.	Symbol	Level	Description
1	V _{SS} (GND)	0V	Ground
2	V _{DD}	5.0V	Power Supply for Logic Circuit
3	V ₀	-	Operating Voltage for LCD Driving
4	D/I	H/L	Data Input / Instruct Code Input
5	R/W	H/L	Data Read / Data Write
6	E	H/H/L	Enable
7	DB0	H/L	Data bus bit
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	CS1	H	Chip Selection of IC1
16	CS2	H	Chip Selection of IC2
17	RST	L	Reset
18	V _{EE}	-	Power Supply for LCD Driving
19	+	-	Backlight
20	-	-	Backlight

* BACKLIGHT CHARACTERISTICS (T_a = 25°C)

LED	Symbol	Unit	3.8	4.2	4.4
Forward Voltage	V _f	h = 390mA	3.8	4.2	4.4
Reverse Current	I _r	V _r = 10V	30	30	30
Luminous Intensity	I _v	h = 390mA	100	100	100
Peak Emission Wave Length	λ _p	h = 390mA	565	565	565
Spectral Line Half Width	λ _{1/2}	h = 390mA	30	30	30

EL	Symbol	Unit	Typ	Max
Voltage	V _{el}	100	100	V _{rms}
Frequency	f _{el}	400	400	Hz
Current	I _{el}	12.3	15.7	mA