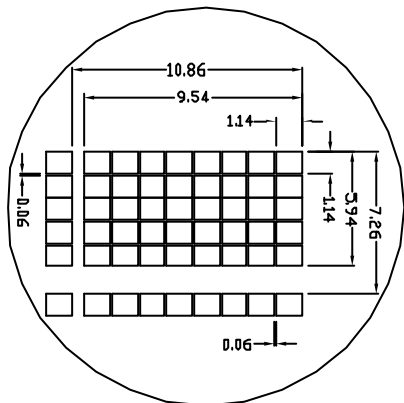
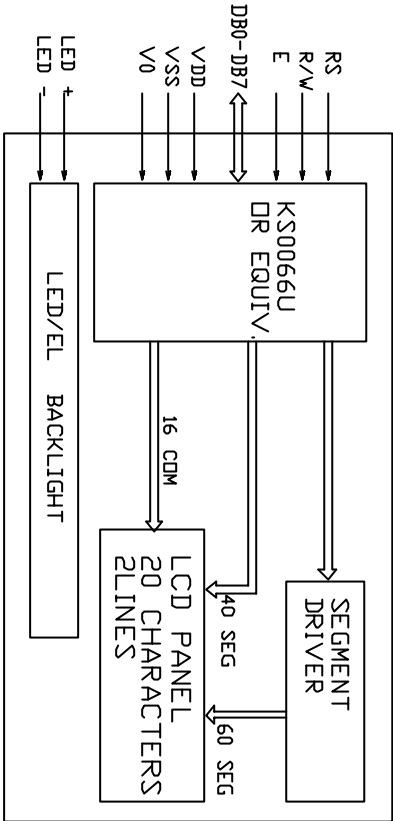


\* FOR LED BACKLIGHT  
 T1=14.0MAX T2=9.0±0.3  
 \* FOR EL DR NO BACKLIGHT  
 T1=10.0MAX T2=5.0±0.3



PINS ASSIGNMENT

NO.	SYMBOL	DESCRIPTION
1	VSS	POWER SUPPLY
2	VDD	POWER SUPPLY
3	V0	OPERATING VOLTAGE FOR LCD
4	RS	DATA/INSTRUCTION SELECT
5	R/W	READ/WRITE CONTROL
6	E	ENABLE SIGNAL
7--14	DB0--DB7	DATA BUS
15	LED +	POWER SUPPLY FOR LED BACKLIGHT (+)
16	LED -	POWER SUPPLY FOR LED BACKLIGHT (-)

ABSOLUTE MAXIMUM RATING

ITEM	SYMBOL	MIN	MAX	UNIT
POWER SUPPLY(VDD)	VDD-VSS	-0.3	7.0	V
POWER SUPPLY(LCD DRV)	VDD-V0	-0.3	13.5	V
INPUT VOLTAGE	VI	-0.3	VDD	V

ELECTRICAL CHARACTERISTICS (VDD=5.0±0.25V, 25°C)

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
VOLTAGE FOR LOGIC	VDD-VSS	4.75	5.0	5.25	V
SUPPLY CURRENT	IDD	-	2.0	3.5	mA
VOLTAGE FOR LCD	VDD-V0	-	4.6	-	V
INPUT VOLTAGE	VIL	-0.3	-	0.6	V
	VIH	-	-	2.4	V
OUTPUT VOLTAGE	LO	-	-	0.4	V
	VOH	-	-	2.4	V

MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATION	UNIT
OVERALL SIZE	180.0W x 40.0H x 14.0T(±0.07)	MM
VIEWING AREA	149.0W x 23.0H	MM
CHARACTERS	20 CHARACTERS x 2 LINES	MM
CHARACTER SIZE	5.94W x 9.54H	MM
CHARACTER PITCH	7.26W x 10.86H	MM

OPTIONS

- LCD TYPE: Y/G STN, GRAY STN, TN
- BACKLIGHT: WITHOUT BACKLIGHT, LED, EL
- COLOR OF BACKLIGHT: Y/G, BLUE, WHITE
- TEMPERATURE RANGE: NORMAL(0--50°C)  
EXTENDED(-20--70°C)
- POWER SUPPLY: 5.0V, 3.0V
- VIEWING ANGLE: 6H, 12H
- CHARACTER TABLE: JAPANESE, EUROPEAN, CYRILLIC

NT-C2023A

20 CHARACTERS X 2 LINES



NELY, YOUR SUPPLIER, AND YOUR PARTNER!

ALL DIMENSIONS ARE IN MM. TOLERANCE IS +/-0.2 UNLESS OTHERWISE NOTED.



REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	01/06/18	A	NEW RELEASE