

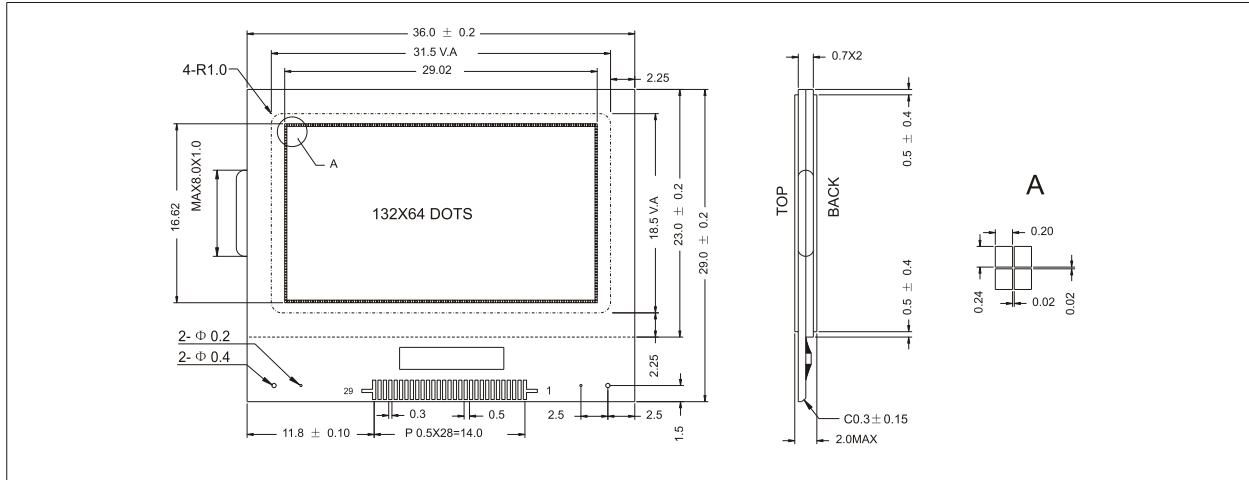


STANDARD COG MODULES

OLG132064AY01

132 x 64 DOTS
1/65 DUTY, 1/9 BIOS

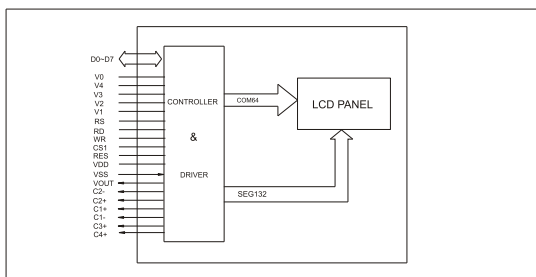
1 EXTERNAL DIMENSION AND DISPLAY PATTERN



2 MECHANICAL DATA

ITEM	SPECIFICATION	UNIT
Module Size(WXHT)	36.0 x 29.0 x 2.0	mm
Viewing Area(WXH)	31.5 x 18.5	mm
Number of Dots(WXH)	132 x 64	dots
Dot Pitch(WXH)	0.2 x 0.24	mm
Dot Size(WXH)	0.22 x 0.26	mm

3 BLOCK DIAGRAM



4 PIN CONFIGURATION

PIN	SYMBOL	SIGNAL DESCRIPTION
1	NC	
2	V0	LCD Driver Supply Voltage
3	V4	LCD Driver Supply Voltage
4	V3	LCD Driver Supply Voltage
5	V2	LCD Driver Supply Voltage
6	V1	LCD Driver Supply Voltage
7	C2-	Capacitor 2 Negative Connection Pin for Voltage Converter
8	C2+	Capacitor 2 Positive Connection Pin for Voltage Converter
9	C1+	Capacitor 1 Positive Connection Pin for Voltage Converter
10	C1-	Capacitor 1 Negative Connection Pin for Voltage Converter
11	C3+	Capacitor 3 Positive Connection Pin for Voltage Converter
12	C4+	Capacitor 4 Positive Connection Pin for Voltage Converter
13	VOUT	Voltage Converter Input / Output
14	VSS	Ground
15	VDD	Power Signal
16	DB7	Data Bit 7
17	DB6	Data Bit 6
18	DB5	Data Bit 5
19	DB4	Data Bit 4
20	DB3	Data Bit 3
21	DB2	Data Bit 2
22	DB1	Data Bit 1
23	DB0	Data Bit 0
24	RD	Read Execution Control
25	WR	Write Execution Control
26	RS	Register Select Signal
27	RES	Reset Signal
28	CS1	Chip Select Input
29	NC	

5 ABSOLUTE MAXIMUM RATINGS(Ta=25 °C)

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Supply Voltage Logic	V _{DD} (V _{CC} -V _{ES})	-0.3	7.0	V
Supply Voltage Driver	V _{DD} -V _{EE}	-0.3	18.0	V
Input Voltage	V _{IN}	-0.3	V _{DD} +0.3	V
Operating Temp.		See page 9		
Storage Temp.		See page 9		

6 ELECTRICAL CHARACTERISTICS(Ta=25 °C)

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT
			MIN.	TYP.	MAX.	
Supply Voltage (Logic)	V _{DD} -V _{SS}		-	3.0	-	V
Supply Current (Logic)	I _{DD}	V _{DD} =3V	-	1.0	1.2	mA
Input Voltage	"HIGH"	V _H	0.7 V _{DD}	-	V _{DD}	V
	"LOW"	V _L	0	-	0.3 V _{DD}	V
Output Voltage	"HIGH"	V _{OH}	I _{OH} =-0.205mA	2.4	-	V
	"LOW"	V _{OL}	I _{OL} =1.6mA	-	0.4	V
LCD Operating Voltage	V _{DD} -V _{EE}	V _{DD} =3V Ta=25 °C	-	9.0	-	V
Supply Current LCD Drive	I _{EE}		-	0.8	1.0	mA

Note(1): () Value is high Reliability type.

Note(2): Electro-Optical Characteristics: See page 6.

7 INTERFACE TIMING CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
E High Level Width	t _{EH}	100	450	ns
E Low Level Width	t _{EL}	100	450	ns
E Rise Time	t _{ER}	-	25	ns
E Fall Time	t _{EF}	-	25	ns
Address Setup Time	t _{AS}	160	-	ns
Address Hold Time	t _{AH}	15	-	ns
Data Setup Time	t _{DS}	200	-	ns
Data Delay Time	t _{DD}	-	350	ns
Data Delay Time(Write)	t _{DDW}	-	40	ns
Data Hold Time(Read)	t _{DH}	20	-	ns

